Editorial

JANUARY 1964

American Agriculturist



WHAT'S IN STORE FOR '64

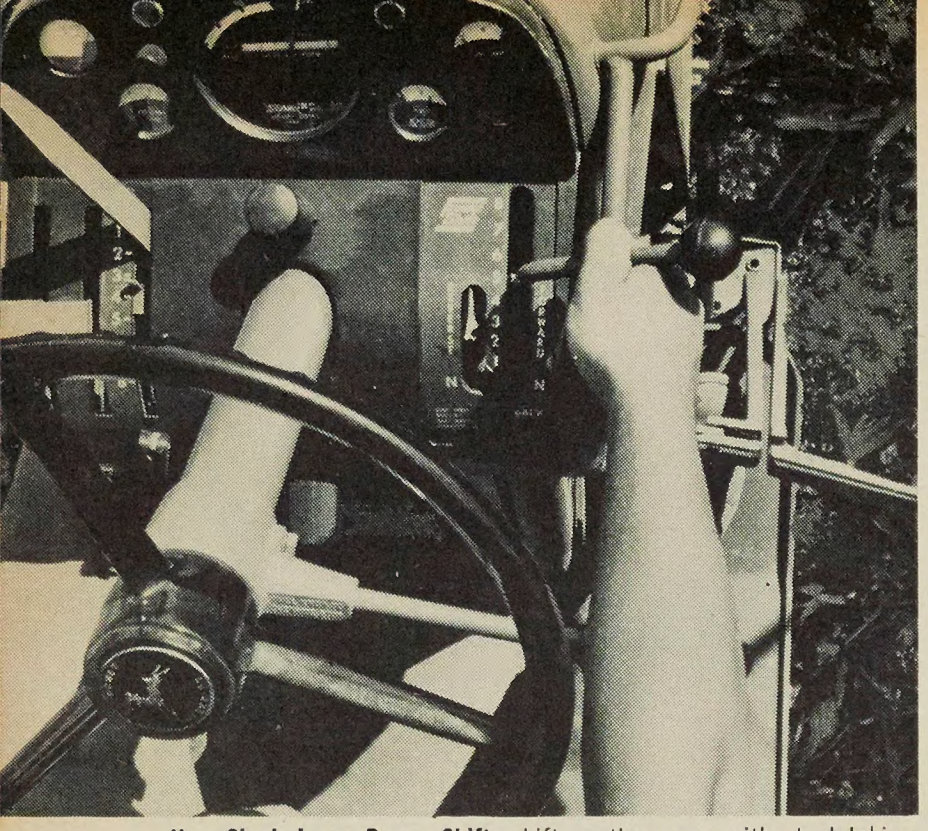
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MILK PRICES UP

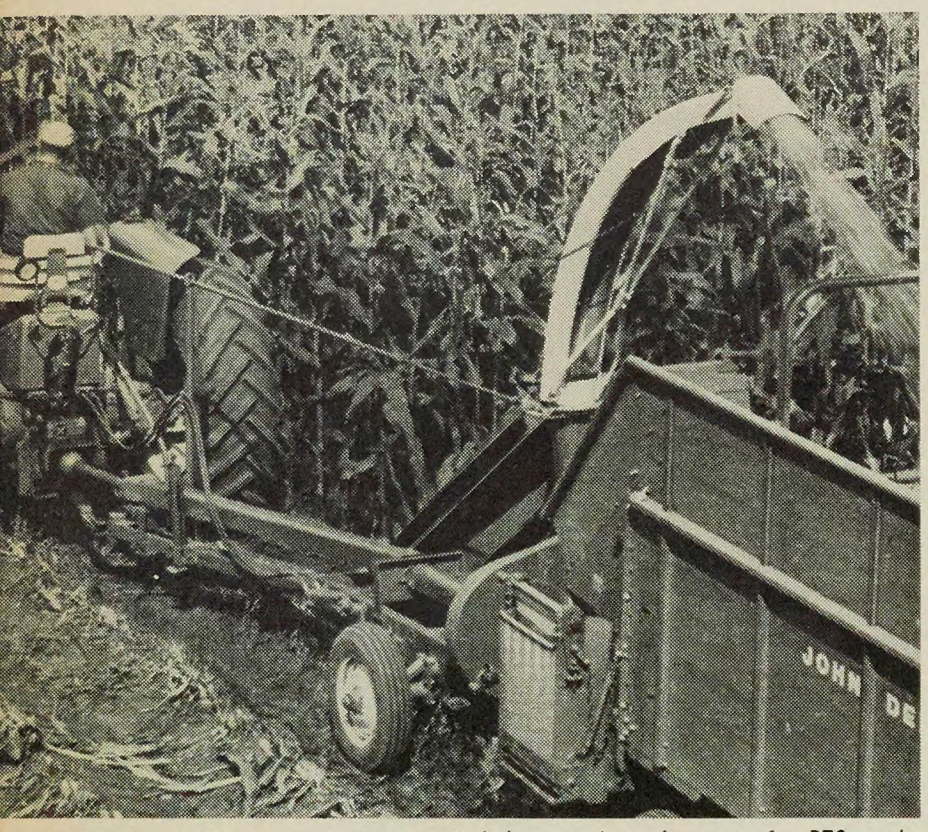
FERTILIZER PRICES STEADY

BEEF CONSUMPTION UP

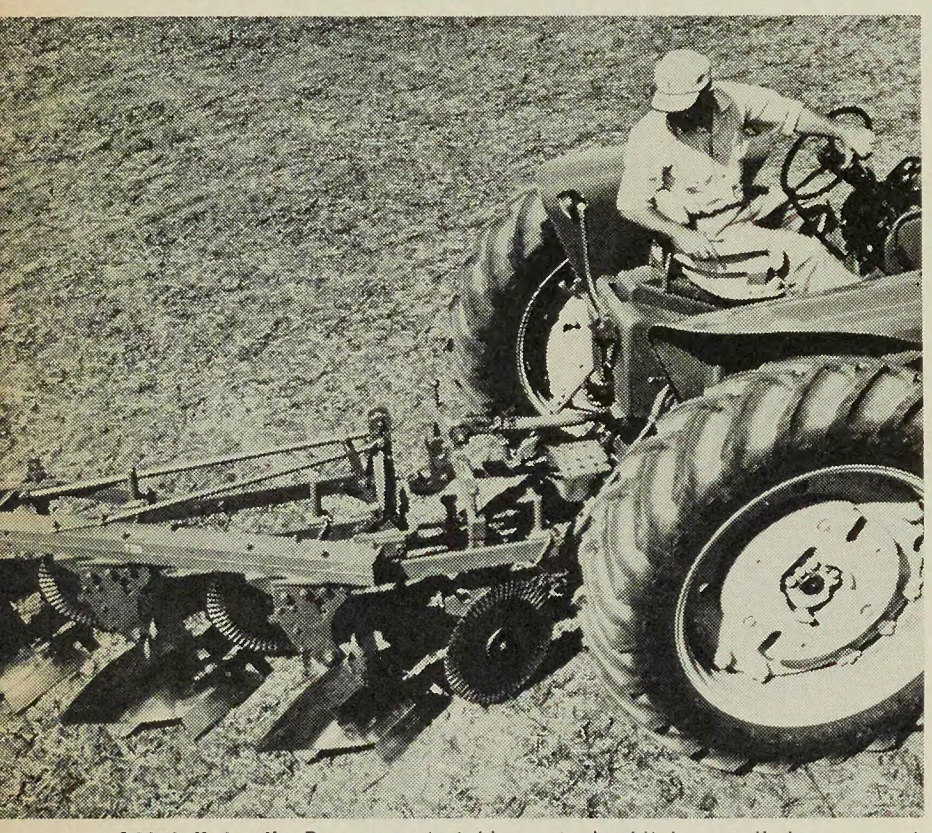
EGG PRODUCTIO STEADY



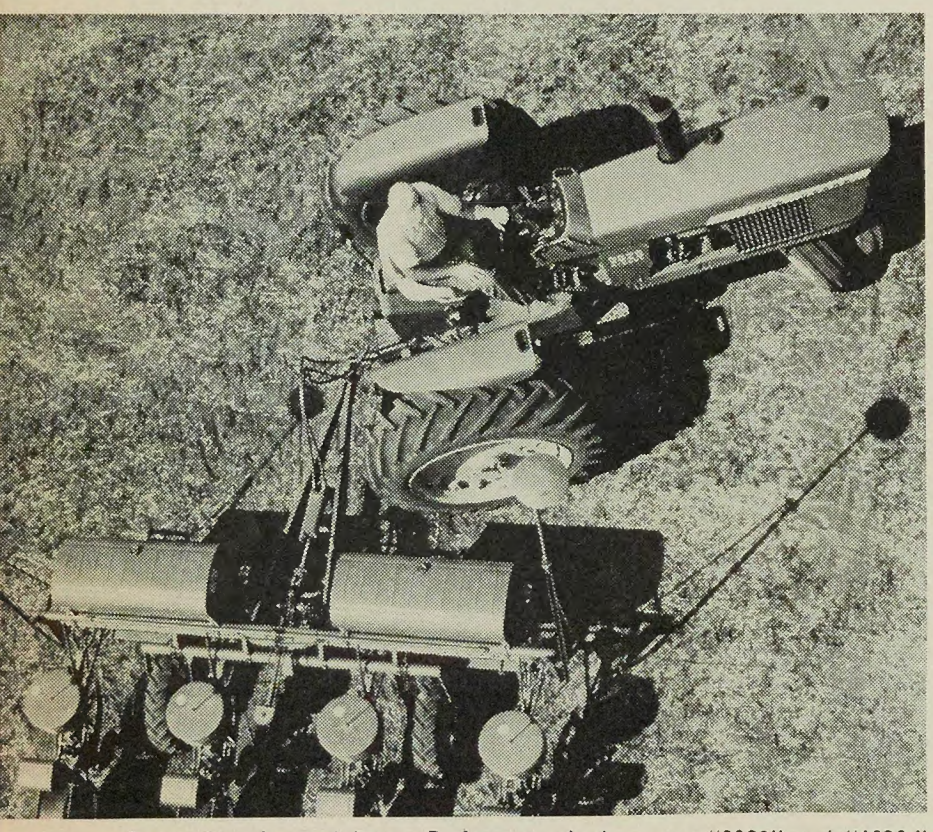
New Single-Lever Power Shift: shift on the move, without clutching.



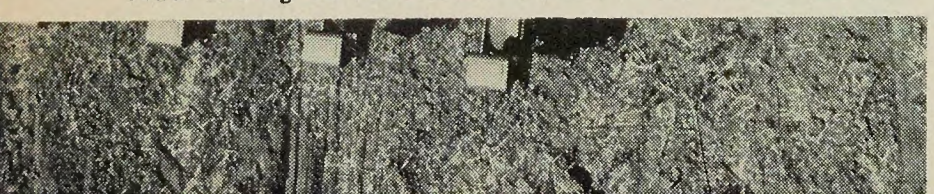
New PTO: powershaft strength is increased; so is power for PTO work.



Added Hydraulic Power: control bigger tools, hitch or cylinder operated.



Power Steering and Power Brakes: standard on new "3020" and "4020."



Stepped-up power... fully usable power

In the new John Deere "4020"... 88* h.p.
In the new John Deere "3020"... 64* h.p.

New Generation "hustle" plus increased horsepower . . . *fully usable power* . . . that's the profit-boosting combination offered by new John Deere "3020" and "4020" Tractors. Gross and corrected engine horsepower may make good conversation . . . but John Deere's advertised horsepower is usable power — power that will speed you to the finish of big jobs hours sooner than before. You get increased pull on the drawbar in the higher, more-practical work gears (3rd, 4th, and even 5th). You'll move through tough spots at a steady pace even with large equipment in tow — we call it "lugging power." Here is power to run where others walk . . . fully usable power to put your work on schedule and keep it there!

New John Deere Power Shift lets you utilize the big power increase to greatest advantage . . . *single-lever shifting* to any of 8 forward and 4 reverse selections *without clutching* . . . on the move . . . under load. Other features reflect the power boost, too. There's bigger and smoother power through the PTO . . . greater lifting capacity in the hydraulic system . . . faster response to movement of equipment controls. Transmission, differential, and final drives are engineered to utilize the power fully.

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**Factory-observed horsepower at the PTO. Not yet tested at Nebraska.*

JOHN DEERE

Department A, Moline, Illinois

Choose from The Long Green Line of John Deere Tractors.


EERE
3020



Ace of Hearts ▲



Evening Glow Salvia ▲



Gaytime ▲

New Annuals for '64

by Nenetzin R. White

Each year the All America flower selections come to us about this time. This non-profit, educational institution is sponsored by the Garden Seed Industry of the United States and Canada, and entries come from private and commercial plant breeders in all parts of the world. This year four annuals have been chosen — two zinnias, a salvia, and a cockscomb, with one even getting a silver medal. Following are descriptions of these four All America selections:

Zinnia "Bonanza"

This silver medal award winning F1 or true hybrid zinnia is Burpee's glowing, golden-tangerine counterpart to last year's "Firecracker." Outstanding as the finest giant, cactus-flowered zinnia ever introduced, Bonanza has huge flowers measuring about 6 inches across and 2 inches in depth — on long, stiff stems, ideal for garden, show, or cutting. Its free-flowering, bushy plants grow 30 inches tall. Even with such large blossoms, the curled and pointed petals give an airiness and light appearance to these striking double flowers. And zinnias are about the easiest flowers to grow directly from seeds.

Celosia "Fireglow"

Fireglow is a cardinal red, globular cockscomb with extremely large heads. Its welcome new color gets away from the purplish crimson and is very noticeable with the huge, velvety central globes 6 1/2 inches across and about as deep. Later, basal branches produce smaller flowers. Luxuriant large dark green leaves enhance the central flower heads on 15-18 inch plants. Use for exciting color display in your garden, in fresh and dried arrangements, and cut apart for corsages.

Salvia "Evening Glow"

At last we find on the market a salvia that isn't red! Evening Glow is a rich, old rose color, livened with coral tongues on the individual flowers. It has large flower spikes on base-branching, uniformly bushy plants, 18 inches or more in height, and they beautifully retain their rich coloring all season. Evening Glow provides lush green foliage and lovely flowers until there are killing frosts. Try this beauty in hedge, rows, or in a mixed flower border for a pleasing and different effect from the red salvia. You will love it.

Zinnia "Pink Buttons"

This light salmon-rose pink, double flowered, button-type zinnia grows about 10 inches high on a bushy plant. Wiry stems amply support the 1 1/2-inch blooms over a long flowering season in the garden and when used for cutting. Showing good disease resistance, free flowering habits, and a most desirable height for garden usage, Pink Buttons is a little marvel and is considered a real improvement over other small flowered and dwarf zinnias. It's easily grown from direct seeding as soon as soil warms up in the spring.

Now, a few words about other new flowers that were not All America selections. Joseph Harris Co., Inc. has several outstanding introductions this year. They are as follows:

Colorama Dwarf Double Dianthus — fully double flowers on 6-inch high plants. The colors are maroon, pink, rose, and white, and they would make charming little pot plants.

Summer Beauty Sweet William is in the same family, but about a foot high and delightfully fragrant.

Gaytime Hybrid Grandiflora Petunia is that most-wanted color, a soft, clear salmon-pink.

Ace of Hearts Hybrid Grandiflora Petunia has gracefully waved blooms of blazing red.

Pink and White Perfection Aster — a new aster with clear, true colors of shell pink and white.

W. Atlee Burpee has a dwarf Sweet Pea, **Bijous Mixture,** which they introduced last year. Now these are available in separate, clear colors and should open many new areas for this ever popular flower. They can be used in borders, beds, or window boxes and require no staking.

Burpee's **Gloriosa Daisy Pinwheel** is a bold, 5-inch daisy in a gay pattern of mahogany and gold. This very versatile plant will blossom the first year if the seed is planted early enough. It then remains as a perennial in your borders. Should you by any chance neglect your garden, these daisies will still thrive.

In the past few years, snapdragons have improved greatly. If you remember snaps as tall spindly plants, try some of the new ones, and you will have a most pleasant surprise. They come in any height, from a few inches to 30 inches, and are bushy, with many side shoots. You can cut them all summer and late into the fall, and will find them a welcome addition to your plantings. Burpee's New **Topper Snapdragons** are F1 Hybrids that are rust resistant and delightfully bushy, in flaming orange scarlet, rose pink, and yellow.

Nowhere, but nowhere, can you get as much for your money as in annuals. Start the plants inside, buy seedlings, or plant directly outdoors as soon as the soil is warm. Try combining two or even three different plants for colors, but be sure to have masses of each. Last year I combined clear yellow marigolds in the background with deep purple petunias in the foreground, and it was a "honey" of a border. Sit by your fire this month, look over the exciting seed catalogs just out, and plan a new look for your garden in 1964! Photos Joseph Harris Co., Inc.

▼ Pink and White Perfection Asters



Pink and Red Button Zinnias ▼



▼ Bonanza Zinnia , Firecracker



American Agriculturist

FOR THE NORTHEAST FARMER

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New Idea Spinner-Type Fertilizer Spreader spreads up to 56 feet wide —new auger unloader makes it a year 'round machine!

Do-it-yourself spreading of chemical fertilizers makes a lot more sense if you have this single spinner machine. It spreads up to 56 feet wide—and does a better job than if you'd hire it done! Spreads any granular fertilizer with greater uniformity than other single or dual spinner machines... spreads granular, semi-granular or pelleted fertilizers—plus seeds. Has patented, case-hardened agitator, positive PTO-driven auger feed.

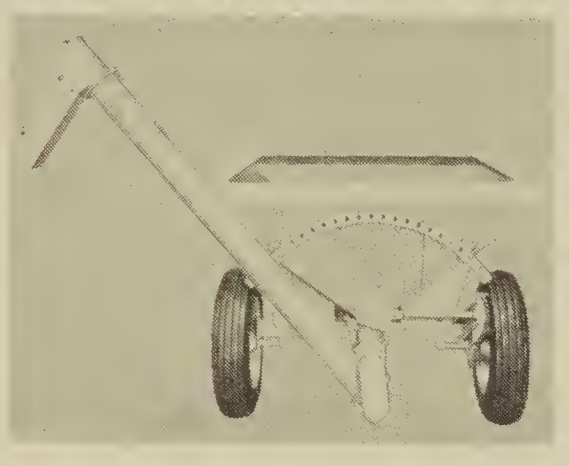
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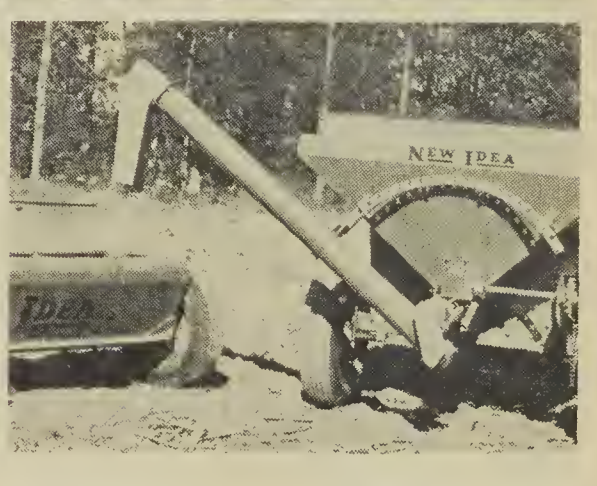
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EDITORIALS

by GORDON CONKLIN



A NEW LEAF

APPROPRIATELY, the first issue of American Agriculturist in 1964 turns over a new leaf in its history-spanning 122 years. It is printed by a process known as web offset, offering endless possibilities for greater use of color and improved readability.

Just as with the new-fangled equipment around your farm and home, it will take us a while to get used to this new process so we can use it to its best advantage. But our New Year's resolution is to bring you a more attractive and readable American Agriculturist — with the same emphasis on articles that will help you make a better living and a better life.

HOW'S THAT AGAIN?

Once upon a time there lived, in the far-off land of Softalia, a young man named John Q. Average. He grew up in a vast sea of apartment buildings, because his parents had to scrimp along on an income of $7,500 a year, making the family eligible for "medium income" public housing.

John attended public schools and enjoyed the "free" federal school lunch program. Because he showed great athletic promise, his parents petitioned the School Board for a costly expansion of the athletic program.

John had always wanted to be a farmer, and after military service he used the G.I. Bill to attend a state agricultural school. While there, he seriously injured his knee and spent two months at a veterans' hospital.

Soon after graduation, he met and later married a public welfare case worker; the young couple borrowed money from FHA to purchase a dairy farm. A serious drought came the first year and he obtained, through the ASC, emergency feed from CCC surplus grain stocks. The ASC also arranged for ACP payments for liming and ditching programs on the Average farm, and the SCS laid out terraces and ponds.

Mrs. Average had continued to work after marriage; the soaring case load had brought public funds to the Welfare Department in such quantity that salaries of the staff could be raised each year. Mrs. Average attended many Town Board meetings to insist that the road by the Average place be widened and paved, and plowed out at all times during the winter.

Hearing that RAD had FHA funds available for recreational development, John applied for and received a 40 year loan to develop a ski slope area. In the process of negotiating the loan, he learned that ARA funds were also available to help "depressed areas" develop new industry, so he organized a group to borrow money for building a plant to process spearmint leaves for chewing gum.

One day, after delivering his wheat to a grain elevator and receiving his check figured on the support price, John came home to find a letter from the Internal Revenue Service claiming that he owed $102.81 more on his last income tax return.

In white-hot anger, John sat down and wrote to his congressman, "When are you going to stop all this government spending? At the rate you're going you will tax us all to death! I believe in rugged individualism, and I am convinced people should stand on their own two feet. Handouts from government lead to moral decay!

"I am against the socialism that politicians are leading us into, and I demand that we return to the free enterprise system of our forefathers!"

TO A CONGRESSMAN

Dear Sir:

I just read in the paper that you are having to scrape along on a measly salary of $22,500 a year, and want you to know that I am deeply concerned about the hardships you are facing. Judging by the accounts of those poolside parties you attend, it's certainly understandable that the cost of high living must be awfully rough in Washington. By the way, is it true that certain types of suits really will drip dry if you—er, fall in the pool?

The farm cooperative of which I am a director pays its manager a bonus based on volume of business and, by the same reasoning, it seems only right you should be paid more. After all, you fellows spend 100 billion dollars a year, and have worked diligently to build up a debt of 315 billion dollars—no other Congress can make that statement!

Now some of my neighbors up the road (probably John Birchers) are old mossbacks and think that Congress should take responsibility for a balanced budget. It's a good thing that you and I have superior knowledge about such things and have hung that old-fashioned notion up to gather dust beside the horse collar. After all, why shouldn't we have the things we want—whether we can pay for them or not?

At various times I have read catty remarks by news reporters that you receive various expense accounts and enjoy free mailing privileges—and often go on overseas junkets at public expense. They nastily imply that your actual income from Uncle Sam already adds up to considerably more than the $22,500 salary you now receive. Don't let them bother you—go ahead and raise your salary to $35,000 a year as has been recommended to Congress! If an election year isn't the appropriate time to push this through, let me suggest a slogan for the future—"35 in 65!"

Incidentally, as soon as you get this salary thing taken care of, I would like to talk to you about some federal projects for my area. After you have gotten yours, maybe you won't be so stiff-necked about labeling some of my ideas "pork barrels." Your interest in this 55 percent jump in your salary points to a new spirit of cooperation in the future concerning the need to spend more on everything!

THE BEGINNING

A tall and rough-hewn man with a melancholy face sat quietly at his desk. Before him lay a stack of papers, but he seemed to be in no hurry to begin work on them. He gazed thoughtfully out the window and journeyed back down the years in memory.

He remembered splitting fence rails one bitterly cold December day, and recalled asking, "Father, why don't the colleges teach things like how to build better fences, instead of just languages that nobody uses — and even that only to sons of rich people? Why couldn't they teach the skills of making a living — like carpenter work and farming and homemaking?"

His father had turned with a laugh, "Son, you must have been reading some of those consarned books again. If you would spend half as much time sharpening your axe as you do with those tomfool books, we would get along a heap faster!"

After the sting of this gibe had died away a bit, the boy went on stubbornly, "Mother's already bent with age — there must be some way to invent machines that would help women get their work done without working from dawn to dark!"

His father snorted, "Oh sure — next you'll tell me there will some day be a machine that sucks up dirt off the floor, and a stove that gets hot just by pushing a button! And I reckon you think the colleges should educate people to waste their time on some fool pipe dream like trying to build a machine that washes clothes without a scrub board! By jingo, Son, sometimes I think you're plumb loco!"

The boy tried once more, his eyes downcast this time, "But there should be colleges for everyone who can learn — colleges where they can learn how to do a better job of making a living. It's not enough to have schools for training preachers and lawyers — and doctors and teachers." His voice quavered, but he went on gamely, "I have always wanted to go to school more than anything else in all the world, but I'll never be able to go."

The big man moved his elbows on the desk and winced, remembering how it had hurt that day finally to put into words what he had long known — that he would never have the chance to quench the thirst for knowledge that burned within him. He mused, "Maybe I can make a start, though, to change things some."

With a sigh, Abe Lincoln picked up his pen and with a firm hand signed the Morrill Land Grant Act.

PURPOSE OF LIFE

Our forefathers looked back down the record of ages past, and then pondered what was within their own hearts. They sought truth about human nature, looked for guidelines of an enduring framework for human conduct. Then, turning resolutely to the future, they expressed the results of their search in the Declaration of Independence and in the Constitution.

The fabric of this nation's living was — and is — interwoven with their convictions. In essence, they stated the purpose of life as they saw it and declared that social organizations — including governments — exist to promote that purpose.

But we, only five generations removed from those hardy realists, no longer see so clearly. We find ourselves wondering whether their wisdom applies to modern times, or whether the nuclear age requires that we discard ideas born before Einstein scrawled upon the pages of history a simple formula that was to shake the world. We tremble on the brink of a great moral abyss — uncertain now about the purpose of life, and therefore incapable of deciding where we want to go.

Instead of making New Year's resolutions about little things, I propose that each of us searches, as did those generations past, for his own answer to the question, "For what purpose does human life exist?" Then take your answer into the New Year and use it as a great hammer with which to test whether proposals for action "ring true."

American Agriculturist, January, 1964

New York CHECKERBOARD NEWS©

...From the Purina Service Centers serving New York farmers

Purina's Built-In-Roughage™ Ration now available to New York dairymen



Operate a dairy farm without hay, pasture, or silage? Yes, it's a fact! A revolutionary new product and feeding program *just released by the Ralston Purina Company* lets you do just that! Called Purina (B.I.R.) Milking Chow, this new product is placed in self-feeders. The cows simply help themselves.

The roughage is built right in. Cows eat out of self-feeders, as much or as little as their production requires. Purina (B.I.R.) Milking Chow is usually delivered in bulk direct to the self-feeder. No further handling is needed. Plenty of nearby fresh water and Purina Livestock Mineral complete the feeding picture.

Will this new idea work on your farm? Maybe. Maybe not. Only you and your Purina Man can figure how this plan might affect your cost of producing milk. Like to see for yourself? Then get in touch with your Purina Salesman or Dealer right away.



Many farmers getting 240 eggs per hen

The quickest way to reduce your cost of producing eggs is to get more eggs per hen. The average flock in the East averages 211 eggs per hen yearly. But thousands of farmers feeding Purina rations are getting around 240 eggs per layer. Quite a difference!

Purina Laying Chows help you produce low-cost eggs, too, because they're *high efficiency*. They're made to produce eggs on less feed per dozen than lower-efficiency rations.

Call your Purina Dealer and ask him to deliver a Purina Laying Feed. Better yet, stop in and see him at the Purina Service Center in your area.

Disease protection in every drop . . .

Purina Drinking Water Sanitizer

You're looking at one of the newest, easiest ways to help protect your pullets and layers against most disease-producing bacteria, viruses and fungi . . . NEW Purina Drinking Water Sanitizer.

You just add Drinking Water Sanitizer to drinking water. This iodine-based Health Aid spells sure death to most common poultry diseases like CRD, bronchitis and sinusitis . . . and most of all, it won't harm your birds!

Drinking Water Sanitizer also comes in handy when you scrub and clean the waterers.

Does your present disinfectant do as much . . . as easy?

Ask your nearest Purina Dealer for new Drinking Water Sanitizer in the black plastic gallon jug . . . then, put this versatile water sanitizer to work in your own poultry operation.



LOW COST PRODUCTION . . . the reason why more farmers feed PURINA®

CAREERS IN AGRICULTURE

by E. W. Foss

"Know how" about agriculture is a valuable asset for many a rewarding career.



Here's the picture that leaps into the minds of most folks when they hear the term "agriculture." Farming *is* at the foundation of its meaning, but it also includes a host of other professions.

IF YOU have a farm or rural background, you've already made a giant step toward a successful career in agribusiness! It's the largest business of all — providing the food and fiber needed to feed, clothe, and house all of us! This includes about one-third of all the manpower in this country to:

1. Supply the needs of farmers.
2. Use these materials and supplies on the farm to produce the food and fiber, and
3. Process, distribute, and market the farm products for the consumer.

Education is a vital necessity for any occupation. If you want a position of responsibility and would like to earn a better-than-average income, you must have better-than-average education, which means a college or technical school. A career for you in agribusiness can be mighty rewarding in salary and have great responsibility — if you prepare for it with enough education.

Reasonable Costs

College or technical school expenses are often very reasonable at agricultural schools and colleges due to state and federal support. Another attractive item is that most agricultural schools and colleges have room for more students during this period when many other schools are almost overrun with applicants. Why is this so? Because too many boys (and girls) and their parents think, **wrongly,** that agricultural schools are only for farmers and are not aware of the other occupational training. Only a small portion of the graduates of colleges of agriculture go into farming. Likewise, more graduates of two-year agricultural schools go into the industrial and business parts of agriculture than go into farming.

What kinds of jobs are available? There is a wide range; here are a few examples you may not have thought about:

1. Are you interested in politics? Among the U.S. senators and legislators, training and background in agriculture is exceeded only by training in law and business. This information is from a study by Representative Bolton of Ohio.

2. Would you like to be an airplane pilot? Many thousands of hours are flown each year by pilots who are spraying or dusting crops, seeding forest trees, and putting out forest fires with airborne tankers!

3. Do you like engines and mechanics? There is more engine horsepower on United States farms than in all other industries put together. It requires a lot of engineers, mechanics, salesmen, bookkeepers, and others to design, manufacture, distribute, sell, and service this $6 billion annual industry.

If you grew up on a farm, have worked on a farm, or have lived around and with farm people in a small community, this knowledge and experience is worth real money in a future occupation. If you want to be a salesman, you'll find that the selling of fertilizers, feeds, farm equipment, seeds and insecticides, etc., requires thousands of sales personnel, and you, through your upbringing, already know the habits, likes, and dislikes of farm people — "you know their language"! This is helpful whether you want to be an economist, engineer, minister, school teacher, veterinarian, or almost any occupation you can name.

More Training

While all grades of occupations exist in agribusiness, from laborer to top administration, the highest paying positions all require education beyond high school. Make up your mind early in high school to climb high on the ladder of occupations.

What courses should you take in high school? You must have 4 years of English, 2 or 3 years of citizenship education, and should have 3 or 4 years of mathematics and 3 or 4 years of science. Courses in vocational agriculture will provide a background of agricultural subject matter from which you can better decide on an agricultural college or technical school major.

It you are interested in agricultural engineering, veterinary medicine, science education, biochemistry, or other allied fields, you will need all the high school science and mathematics you can take. If you plan to go into the social sciences, extra courses in social studies and languages may be more helpful.

There are three ways of breaking down the occupations in agribusiness. One way is to separate them by the type of work performed. The lower ones on the ladder require less education, usually pay less, have smaller responsibility, and lower "prestige." The two things you need most to climb this ladder is to really "want to" — and then to get the education that will make it possible.

A second broad classification is by "specialty." Our technical schools and agricultural colleges are divided into departments by specialty — thus we have dairy, poultry, vegetable crops, agronomy, etc. In general, they can be broadly divided four ways: animal sciences, plant sciences, physical sciences, and social sciences. The departments under each have certain common similarities and educational requirements.

The third way of dividing all occupations, including agribusiness, is by "service function." There are some five to seven general categories, depending on who you work for and what the organization does. We thus have research, education, communication, regulation & services, business, industry, farming, and conservation.

The nation's Land Grant colleges are graduating some 8,000 men and women a year, yet agribusiness is crying for more trained people. Why don't you become one of them? Write to your state agricultural college or technical school for the latest word.

American Agriculturist, January, 1964

YOUR GLF CROP NEEDS REPORT

- Kirby Brothers of Albion, N. Y., report fertilizer savings on early take discounts, discount for cash, trucking their own
- How to save as much as $14 per ton, on a plant food basis, by changing to GLF high analysis Ferti-Flow grades
- Corn Silage—24 tons/acre! Three ways GLF 100-20 Corn Club growers boosted their yields

Over 700 dollars saved in one year

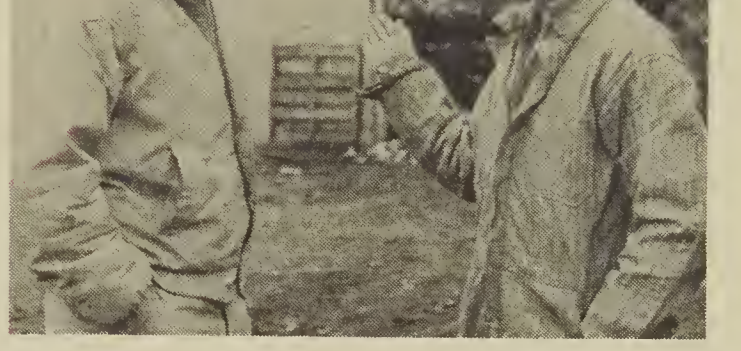
The Kirby Brothers, crop growers and dairymen of Albion, N. Y. keep a tight rein on the cost of production. One of their most successful cost-cuts has been in fertilizer. Last year they saved over $700 in fertilizer cost alone, by making use of GLF's Complete Crop Service.

First, they took most of their fertilizer in December and January, thus getting the benefit of GLF's Early Order Discounts.

Second, they paid cash—another big saving.

Third, they trucked their own from the GLF Fertilizer Plant at Batavia, N. Y.

They are now working on a fourth way to cut the bill—BULK. This would increase their savings even more.



John Kirby (on right) talking to Oiva Vesa, of Orleans GLF, Albion, N. Y. John says the only thing that stands in the way of their getting the savings on bulk fertilizer is storage space. "But we're going to solve that one. We're thinking of putting a cement floor in one of our buildings. We'll be able to store the early take bulk fertilizer there in the winter."



Francis Kirby is so interested in bulk that last winter he took some early take fertilizer in bulk form . . . stored it in 20 bu. crates lined with plastic. "The crates worked out well. But what we need is a building we can store all of our early take material in. We need the fertilizer here so we can get a fast start in the spring, and I think we'll convert one of our buildings to take advantage of the bulk savings offered by GLF."



Bob and George Kirby explain how they handle their early take fertilizer at present: "We stack our bagged, early take material on pallets, loading and unloading with fork lifts. We store it in dirt-floored buildings which, in season, are used to hold cabbage. With this pallet system, there are no moisture problems, despite the dirt floors."

More savings with GLF Ferti-Flow

The Kirbys found out quite a few years ago about the savings in GLF high analysis fertilizers. They use the Ferti-Flow grades, which save them up to $14 per ton on a plant food basis. (You can do this too. For example, use one ton of GLF Ferti-Flow fertilizer 10-20-20 instead of two tons of 5-10-10.)

Averaging over 24 tons of corn silage to the acre

The GLF 100-20 Corn Club is composed of a group of farmers who agreed to follow specific recommended corn growing practices. These practices are designed so corn yields can reach or exceed 100 bushels of grain or 20 tons of silage per acre. In the two years prior to last season (1963 results are not yet compiled), enrollees have averaged over 24 tons of corn silage; and over 10,500 lbs. of TDN to the acre.

These records have indicated that the following three practices have given greatest results (always assuring that lime level is adequate):

1. Adequate weed control is an absolute essential.

Where broadleaf weeds are the only weed problem, GLF Weed Killer "66" Improved returns up to an extra 10 tons of corn silage per acre for every 50 cents spent. Where annual grass is the problem, Atrazine returns up to an extra 10 tons of corn silage per acre for every seven dollars spent.

2. Plant population rate should be as high as soil conditions permit.

Increasing population from 15,000 to 20,000 plants per acre can increase corn silage yields by as much as 3 tons of silage per acre, all other factors being equal. These three tons can produce up to 3,600 lbs. more milk, worth $144. Extra seed cost is approximately 50 cents.

3. Many 100-20 Corn Club growers selected Ferti-Flow 16-8-8.

This is a good choice for men with 10 acres or less because it supplies, in one application, a balance of plant foods ideal for corn production.

Growers of large acreages were able to save about $2 per acre by using GLF 5-20-20 Ferti-Flow Fertilizer at planting, plus liquid nitrogen or GLF Ammonium Nitrate later in the season.

Growers with the split boot planter prefer the second method because there's less chance of fertilizer burn.

See your GLF man today. Find out how much *you* can save by ordering your fertilizer *now*. Remember, the earlier you order and take, the more you save. Ask too about all the other assistance that goes along with GLF's Complete Crop Service. *Cooperative GLF Exchange, Inc., Ithaca, N.Y.*

GLF Quality

COMPLETE CROP SERVICES

for greater net returns

Focus on the Future



Hugh Cosline, with the help of top economists and government experts forecasts "What's in store for 64."

Many factors, known and unknown, will affect farming in 1964. Among them are food production (both total and by areas and products); demand for food, domestic and foreign; costs (both the general price level and the cost of items such as feed and fertilizer); and last, but by no means least, government action.

These factors can be broken down further. For example, total food production will depend most on weather and acreage, but will be affected also by price supports and by management of production, including what farmers guess will give them the greatest net profit.

The experts guess that total U. S. net farm income will be a bit lower than in 1963. However, with the expectation that the trend to fewer farms will continue, the net income per farm may equal last year, and the net for YOUR farm may be higher, depending a little on luck but more on the management skill you use.

POULTRY FUTURE

- EGG PRICES SLIGHTLY DOWN
- LARGER FLOCKS
- EGG PRODUCTION STEADY
- BROILER PRICES SQUEEZED

To have a chance for profit, a poultryman must care for the number of laying hens that is possible with modern methods. The 1,000-hen flock or less is on the way out, except possibly for the semi-retired man who has a poultry house, some home-grown feed, and a retail market.

On the other hand, I am by no means sure that the 70,000 flock or bigger will become the accepted pattern. Although the trend is to bigger flocks, the biggest increase is in numbers of poultrymen going to 10 to 20 thousand layers. For one thing, a retail or semi-retail outlet seems essential, and there may be a limit to the volume of eggs that can be sold at a premium within a reasonable distance.

Nationally, U. S. egg production will be about the same as in '63. Recently, the U. S. laying flock was one percent below a year ago. Regionally, the laying flock was up in the South Atlantic and Western states, down in the East and in West North Central states. However, on November 1, 1963, pullets not laying were up 5 percent nationally from a year ago (down slightly in the Northeast). Egg prices — average for '64 — may be down slightly. One estimate is 1/2 cent per dozen lower.

Broilers are unlikely to bring better prices than in '63; may be slightly lower. Broiler production in the Northeast (with the exception of Maine) has declined.

DAIRY PICTURE

- MILK PRICE UP
- COW AND HEIFER NUMBERS DOWN
- PRODUCTION COSTS UP
- DEMAND FOR MILK UP

U. S. dairy cow population has been declining quite steadily for some years (3 percent in '63) but production per cow has been climbing just as steadily. The forecast for total U. S. milk production in '64 is that it will equal the 125 billion pounds produced in 1963.

Demand for milk and dairy products is expected to increase, but a surplus will still be with us. However, government price support purchases of dairy products in '63 were 23 percent below '62, still representing about 8 billion pounds of milk.

The price of fluid milk in the Northeast is higher than in western states; higher in New England than in the rest of the region. Principally because of the supply-demand situation, the price of milk produced in the Northeast in 1964 is expected to average 5 to 10 cents above last year.

In New England, October was the eighth consecutive month that milk consumption in the Boston market topped the same month in 1962. One economist looks for a continued increase in consumption due to better employment.

In the New York-New Jersey milk market (Order No. 2), recent amendments to the Order will have some effect on prices. South Jersey is now under the merged Philadelphia-Wilmington Order (called the Delaware Valley Order), which is a dealer pool market instead of a marketwide pool such as in the New York-New Jersey market.

It appears that there will be less urgency for producers to get into the New York-New Jersey market, and perhaps some reason for some producers in the Order 2 area to ship to New England or Philadelphia. To the extent that this happens it will reduce supplies under Order 2 and improve the percent of milk sold as fluid.

Cooperatives in the New York-New Jersey market object strenuously to the Order amendment permitting a 10 cents per cwt. hauling charge to producers of milk. They have announced that they will not make this charge to members. The market, especially the supply-demand situation, will determine whether dealers can collect a hauling charge or whether bulk producers can get free hauling.

Milk production costs — especially feed and labor — will almost certainly be higher. Fertilizer, however, will remain one of the best buys around. Its cost has been relatively stable for the last ten years.

Feed costs will be affected by export demand from Britain and the European Continent. If it continues good, feed prices will tend to strengthen. Last summer's drought resulted in the feeding of much hay that would ordinarily be fed this winter. The corn crop was good, but early frost reduced the average quality. Therefore, it looks as though many dairymen would be feeding more concentrates than in the '62-'63 winter, and at slightly higher cost per ton.

Dairymen can well watch certain trends. Cow population continues to decline and production per cow to increase. In 1963 dairy cow numbers in New York dropped 2.6 percent. However, the decrease was less in early months and greater by year's end. Yearling heifers are estimated as down from 314,000 last year to 290,000 now. In the Northeast, 1964 milk production will almost certainly be lower than '63.

The average size of herds is increasing and the number of dairy farmers is decreasing. In the last five years, 10,000 New York dairy farmers have gone out of business, and there is no indication that the trend is over. In 1963 alone, the number of milk producers in New York dropped 7 percent.

VEGETABLES & FRUITS

- CANNED STOCKS DOWN

The 1963 U. S. potato crop was slightly smaller than in '62, but in some areas quality has been lower. Prices have been running about the same as last year, but spotty. Upstate New York now grows more potatoes than Long Island. Acreage upstate is relatively stable, at around 43,000.

In spite of government persuasion, Maine growers voted out a Federal marketing order on potatoes. This will result in a higher percent of Maine potatoes going to market, and in other states will increase competition from Maine. Looking to '64 there is nothing to warrant acreage increases.

Vegetable processors did better in '63 than in '62. U. S. stocks of canned vegetables are down; total use of processed vegetables set a new record last year. Watch for mechanical harvesting to become even more important in the vegetable business.

As for apples, price prospects for the 1963 crop to be sold in '64 look good. November 1, 1963 cold storage holdings of apples in New York State were 8.5 million bushels — 600,000 bushels less than on the same date in '62 and 200,000 bushels less than the 1959-'62 average on that date. Nationally, November 1 stocks of canned applesauce were a million cases below a year ago. Citrus fruits offer less competition because the 1963-'64 citrus crop is the smallest since 1942 — 20 percent below the average annual level of the 1950's.

LIVESTOCK REPORT

- IN GENERAL, FEEDERS WILL HAVE A GOOD YEAR.

Per capita consumption of red meats has trended upward for the last decade. In 1963, there was an increase of 6 pounds per capita in red meat consumption over that of 1962, practically all of it in beef. In fact, beef has been capturing more of the red meat market year by year, hitting an all-time high of 95 pounds per person in 1963.

In general, it's predicted that livestock feeders will do pretty well in 1964. Feeder cattle prices were lower late in 1963 than for the same period in 1962, offering feeders the chance for a bit more margin. The pig crop nationally is down 4 percent; slaughter will be down and prices up just a bit. Hog prices, which jumped all over the map in 1963, should be more stable in '64. With an all-time record corn crop bulging in the bins, feed is plentiful.



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Middletown—H. L. Ayres, P.O. Box 187
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Morrisville—Ralph Pashley, P.O. Box 432
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Niagara Falls—Delta Tool Rental, 2901 Military Rd.
Nicholville—Bould's Farm Supply
Nineveh—Maurice M. Wightman Sales & Service Route 1 (E. River Rd.)
North Boston—Klein Equipment Corp.
Odessa—Odessa Farm Equip., Inc.. c/o S. Darling, Rt. 1
Ogdensburg—Fred Shurleff's Inc. Washington & Catherine St.
Oneonta—West End Implmt. Co., Country Club Rd.
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Oswego—Cloonan Small Engine Service, Route 2, Hall Rd.
Panama—Weise Hardware & Electric Co.. Main St.
Pavilion—P-D Service
Peekskill—Caola Bros., Route 2-Rt. 202
Penn Yan—Smith's Farm Store, Inc., 135 E. Elm St.
Pike—Mr. Leon Wilcox
Port Gibson—Port Gibson Equipt. Co., P.O. Box 151
Port Jefferson Station—Vehicle Service Corp., 1575 Patchogue Rd.
Port Leyden—McHale Chain Saw Co.
Poughkeepsie—John G. Gauthier
Prattsville—Prattsville G.L.F. Service
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Saranac—Jon T. Ryan
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Staten Island—United Rent-alls of S. I., 3874 Rchmd.
Staten Island—Trimalawn Equip., 2081 Victory Blvd.
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Syracuse—Alexander Grant's Sons, 935 Erie Blvd. East
Tarrytown—County Power Tool Co.
Troy—E. F. Goyer, RD 1, Box 35
Troy—Troy File Works, 249 Congress St.
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NEW JERSEY

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Bayville—Dover Supply Co. Mill Creek Rd., P.O. Box 225
Bergenfield—Bergen Rental Service Inc. 150 S. Washington Ave.
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Branchville—The Roy Co
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Cranford—Andy's Handy Service, 117 South Ave., West
Dover—Handymans Tool Shop, Centergrove Rd. & Route 10
Eatontown—Grasslands, Inc.
Elizabeth—A-M Tool Rental, 61 Cherry St.
Englishtown—Joseph J Szczepanik, Union Val. Rd.
Florence—Harkins Sls. & Ser., Rte. 130, Cedar Lane
Freehold—C. H. Roberson, Inc., 29 Court St.
Garfield—Ralph's Hwy. Ser., Rt 46 & Blvd.
Gladstone—G. F. Hill & Co.
Hackettstown—M. B Bowers & Son, Inc.. 128 Willow Grove St.
St., Buffalo 6, N. Y.; 2518 Erie Blvd., East Syracuse
Hanover—Do It Yourself, Inc., Route 10
Hazlet—Service Equipment Co 3141 Route 35
Hewitt—Sportsman's Boats & Motors, West Shore Rd.
Kearny—Morris Hardware & Paint Supply Co., inc., 101 Midland Ave
Lamhertville—John Kurtz, Route 1
Ledgewood—New Jersey Lawn & Power Mowers Equipment, Route 46
Livingston—Needham's Grinding Service 119 W Mt. Pleasant S.
Madison—Trac. & Lwnmr. Sales & Ser., 331 Main St.
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Medford—Fred Myers, Jr., Route 2—P.O. Box 304
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Monroeville—Albert Weber, Route 538 Swedesboro-Franklinville Rd.
New Egypt—J. R. Caines, Route 539
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North Plainfield—United Rent-Alls, 714 Route 22
Oakland—Bergen Power Equipment, 593 Valley Rd.
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Old Bridge—W. J. Rainaud P O. Box 95, Hiway 9
Pine Brook—Shulman Tractor Co., Route 46
Princeton—Town Saw Shop, Tulane St.
Riverdale—Wayside Garden Center, Route 23
Riverton—Riverton Farm & Garden Sup., Inc. Rt. 130
Short Hills—Millburn Grinding Shop, 658 Morris Turnpike
Sparta—Sparta Hardware 182 Woodport Rd., Rt 15
Summit—Glenjay's Mwr & Gdn. Shop, 385 Springfld. Av.
Sussex—Len's Service Station Route 1
Union—Rent-A-Tool, Route 22
Vincentown—Wells Mobile Service, Route 206
Vineland—Swanson Hardware Supply, 553 N. E. Ave.
Waterford—Rusnak Bros., Inc.
Williamstown—Weed's Lawn & Garden Mart

NEW YORK

Addison—Addison Farm Equip. Co. 121 E. Front St.
Akron—Blew Equipment Co., 32-43 Mechanic St.
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Altamont—Alfred L. Schager
Amsterdam—Joe Bazaar's Machine Shop, RD 2
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Canastota—Alfred A. Patano
Canisteo—Olson Equipment, 58-62 Depot St.
Conklin—Ray E. Goodell, R.D. #1
Carmel—Carmel Lwnmr. Rep., Fowler Ave. (Red Barn)
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Cold Spring—Cold Spring Service Center Chestnut St.—Route 9D
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E. Aurora—Star Landscape, 7540 Seneca St.
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Erieville—Magee's Service
Fairport—Knapp & Trau
Falconer—Schutt's Saw & Mwr. Shop, 135 S. Work St.
Fishers Island—Home Appliance Center, P.O. Box G
Franklinville—Len's Sharp Shop, 10 Green St.
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Fulton—Harold Burton, 202 Division St.
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Gasport—C. J. Perry & Sons, Inc.
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Getzville—H. & E. Motors, 550 Dodge Rd.
Glen Head—Countryside Enterprises, Inc. 691 Greenvale—Glen Cove Hwy.
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CONTROL JOINTS

in concrete masonry farm buildings *

CONTROL JOINTS, as applied to concrete masonry, are continuous vertical joints built into the walls of a building for the purpose of permitting slight movements in those areas where stresses might concentrate. They must be built plumb and of the same thickness as other mortar joints. In some instances, the control joint is calked.

Control joints reduce stress concentration in the wall and thereby eliminate random cracking. Such joints also provide lateral stability while still providing for movement of adjacent wall sections.

Why Control Joints?

Like other construction materials, concrete masonry is subject to expansion and contraction from various causes such as moisture and temperature change. Other things that cause stress in a structure are the result of design. For example, high stress concentrations due to applied loads from roof members; unequal settlement of the foundation; and built-in restraints such as columns and intersecting walls.

The control of cracking in masonry construction begins at the plant where the block is produced. Clean aggregates and sands, relatively free of clay content, are needed to make good quality block. Proper proportioning and mixing are also essential. Of equal importance is the curing of the finished units.

Shrinkage, one of the causes of stress within a wall, is greatly reduced when the units have been properly dried. The maximum moisture content of concrete masonry units is limited by federal specifications to 40 percent of their total absorption. The Corps of Engineers requires that the moisture content be no more than 30 percent of the total absorption. It is important that concrete masonry units be as dry as the specifications require.

Maintaining concrete blocks in the dried condition from the time they are unloaded at the building site till the walls of the structure are completed is helpful in reducing wall shrinkage. Keep blocks dry on the job by providing planks or other supports to prevent contact with the ground. The stockpiled blocks should also be covered for protection against wetting.

During construction of a wall, the in-place blocks should be covered to prevent water from entering the cores. Concrete masonry units should never be sprayed with water before or during the construction of the wall.

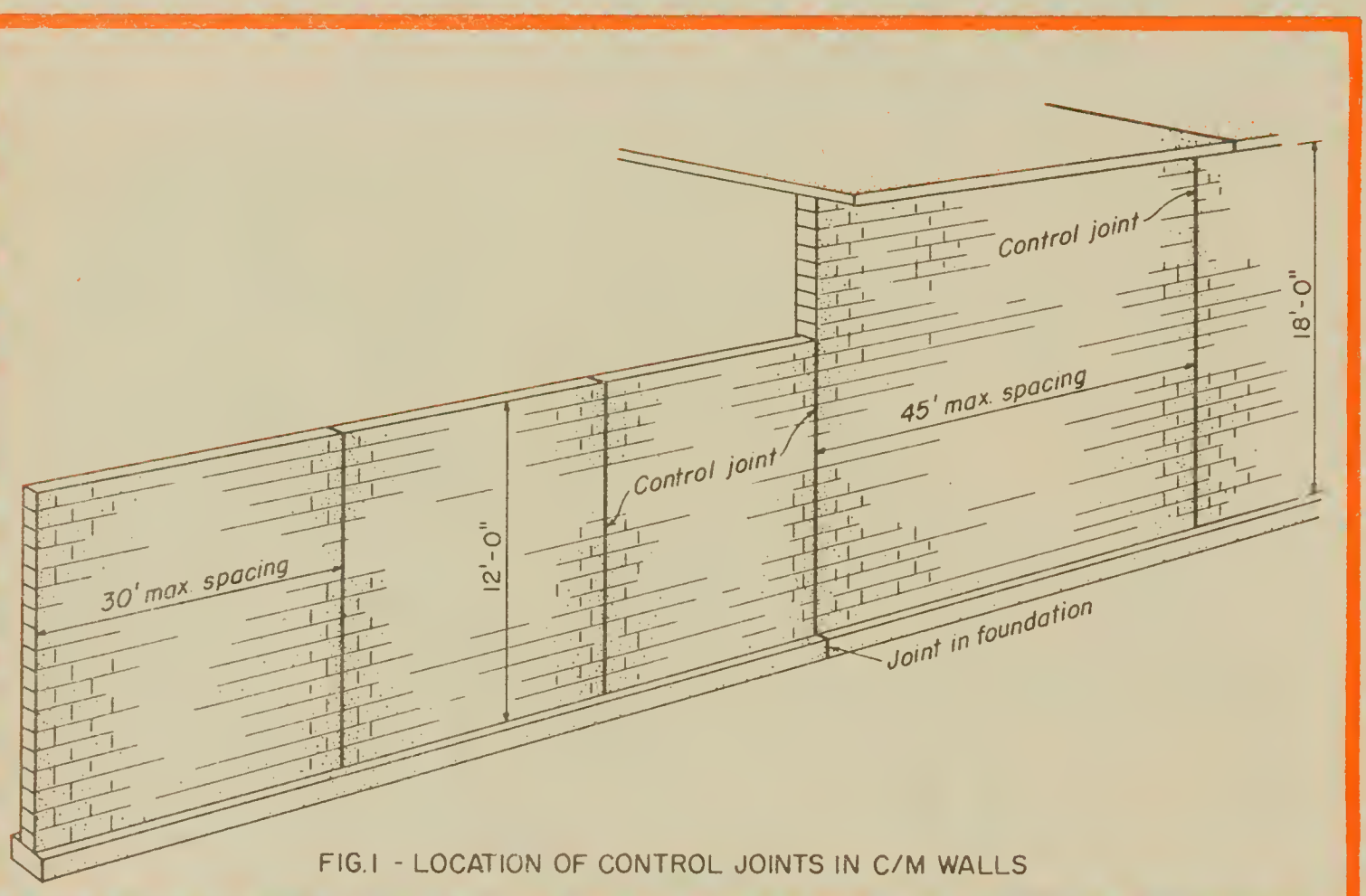


FIG.1 - LOCATION OF CONTROL JOINTS IN C/M WALLS

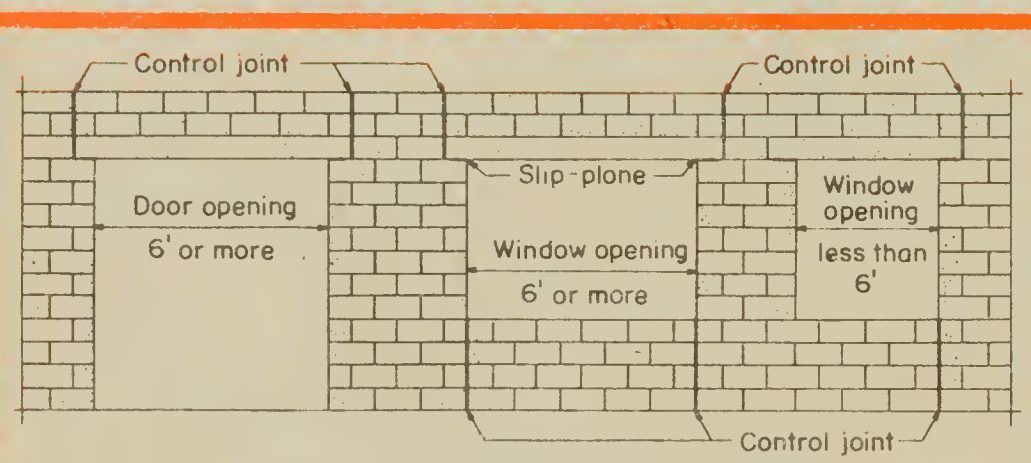


FIG 2 - LOCATION OF CONTROL JOINTS FOR C/M WALL WITH DOORS AND WINDOWS

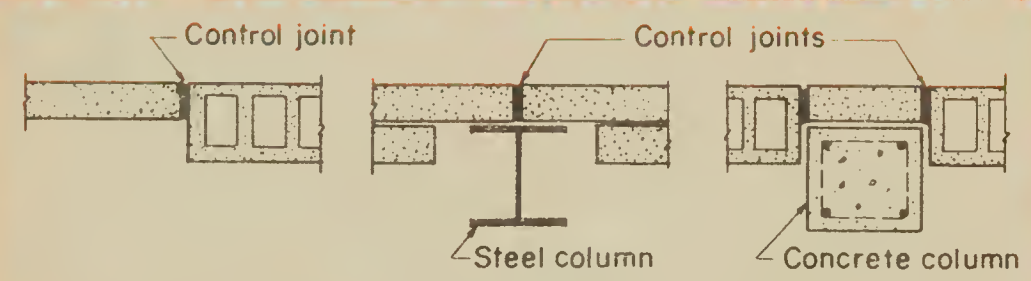


FIG. 3 - LOCATION OF CONTROL JOINTS AT CHANGES IN WALL THICKNESS

Where Used?

Locations and spacings of control joints cannot be determined according to set rules. The moisture-volume shrinkage is different for the various types of aggregates. Restraints are often imposed upon a wall by items such as roofs, floors, columns, pilasters, and intersecting walls. Wall openings further complicate the problems. Therefore locations of control joints become a matter of judgment and experience.

However, building designers and contractors agree that there are certain fundamental relationships regarding control joints in concrete masonry that should be followed (See Fig. 1). These "rules of thumb" will help to guide you in locating and spacing control joints:

1. A plain wall with no doors, windows, or columns should have a control joint spacing no greater than 2 to 2-1/2 times the wall height (height of hollow-masonry walls limited to 18 times wall thickness).

2. A control joint should be placed at all abrupt changes in wall height, since a concentration of stresses will likely occur here.

3. A control joint is also necessary at all abrupt changes in wall thickness. This occurs at the juncture of a single-story wing with a multistory building or at columns or pilasters (See Fig. 3).

4. If the concrete foundation supporting a masonry wall contains joints (occurs in building additions), the joint should be continued up through the concrete masonry wall. This applies to interior as well as exterior walls.

5. Joints in the roof slab should be extended down through the concrete masonry wall.

6. Control joints should be placed at major openings such as doors or windows (See Fig. 2). Openings are likely points of high stress and cracking. The joints at the bottom of the window should extend directly below the sides of the opening. Above doors and windows they are offset to the end of the lintels. A slip-plane bearing surface of copper, galvanized sheet steel or other suitable material should be provided between the lintel and the supporting masonry units.

FIG. 4 **Continued on page 12**



*Courtesy Portland Cement Association

EVERY OTHER MASTITIS TREATMENT WOULD BE LIKE THIS IF IT COULD



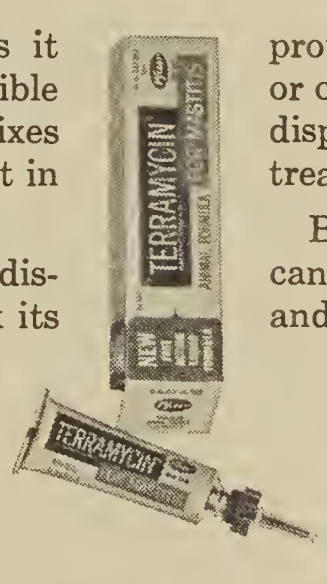
BUT THEY CAN'T
when they're not all liquid



The all-liquid formula of Terramycin for Mastitis helps it spread throughout the milk and udder—in the fastest possible time. In fact, Terramycin for Mastitis is so clear and mixes so fast that it was necessary to add an opaque pigment to it in order to make this water demonstration.

Not only that, but every bit of the Terramycin is predissolved in this liquid formula. There's nothing to hold back its fighting power. It's instantly available with all its broad-range mastitis-fighting action.

Every other mastitis treatment would be like this if it could. But they can't if they're not all liquid. To protect their potency, most others have to be made up in oils or ointments. You can see why there's never as fast or complete dispersion or as fast release of antibiotic activity when the treatment value is tied up in a sticky goo.



But it's easy to see why Terramycin's all-liquid formula can do its work, then milk out clean and completely. It works and goes. Treats and milks out.

Now can you understand why Terramycin for Mastitis is by far the best-selling treatment on the market?

Chas. Pfizer & Co., Inc., New York 17, N. Y.
Science for the world's well-being®

Pfizer

ALL-LIQUID TERRAMYCIN® FOR MASTITIS

oxytetracycline HCl

WORKS AS ONLY AN ALL-LIQUID FORMULA CAN

Warning: Do not use milk for food within 72 hours after treatment for mastitis.



DECEMBER, 1962

Our progress story...



MAY, 1963



AUGUST, 1963

"The Tides of Time are Healing Tides"

. . . and, while those of us in the Citrus Industry shall never forget scars left by "The Big December Freeze", we shall never forget, too, the remarkable healing power shown by nature as the months pass. Today we know that

Florida Citrus Pulp Feed

will continue to be available year-round . . . thanks to nature's remarkable healing powers and the careful pruning, painting, fertilizing, irrigating and scientific grove care by owners.

. . . We know, too, that Florida Citrus Pulp will remain, as always, your best feed buy when measured by the Total Digestible Nutrients content.

FLORIDA CITRUS PROCESSORS

FLORIDA CITRUS PROCESSORS

(Florida Citrus Commission) P. O. BOX 780 • DEPT. CP 19 • WINTER HAVEN, FLORIDA

CONTROL JOINTS ...

Continued from Page 10



FIG. 5



FIG. 6

7. Openings less than 6' wide usually require a joint along only one side. Wider openings should have joints along both sides.

8. Intersecting masonry walls should never be tied together in a masonry bond, except at the corners. One wall should terminate at the face of the other with a control joint. A steel tiebar — 1/4" thick — is often used to provide stability for load-bearing walls without restraining wall movement (See Fig. 4).

9. When the intersecting wall is not a load-bearing partition, galvanized hardware cloth will provide an effective tie. These strips of hardware cloth can be placed in one wall and incorporated in the other wall when it is built later (See Fig. 5).

Constructing Control Joints

Control joints are usually laid up in mortar just as other vertical joints. In areas where a concrete masonry pilaster unit with a notch to take a regular jamb block are available, the masons do not mortar the joint. The control joint may or may not be calked. If it is to be calked, a recess should be provided for the calking material. After the mortar has become quite stiff, it should be raked out of the joint to a depth of about 3/4". The inner faces of the joint are then primed with shellac or other sealing materials to prevent the masonry units from absorbing oils from the calking compound.

One popular method of forming a control joint involves the use of the special tongue-and-groove masonry units (See Fig. 6). These provide excellent lateral stability to the wall.

Another method makes use of regular open-end units. A strip of building paper is placed into the core formed by the two adjacent units. The core is then filled with mortar to form the key for transmitting lateral loads. Since the paper prevents bonding of the mortar, the control joint will permit longitudinal movements of the wall but no lateral movement.

Offset jamb block can be used at control joints, with a noncorroding metal tie bent in the form of an open Z laid across the joint (See Fig. 7).

Fractures in concrete masonry farm structures are rare when quality concrete masonry units are combined with good construction practices and well-designed control joints.

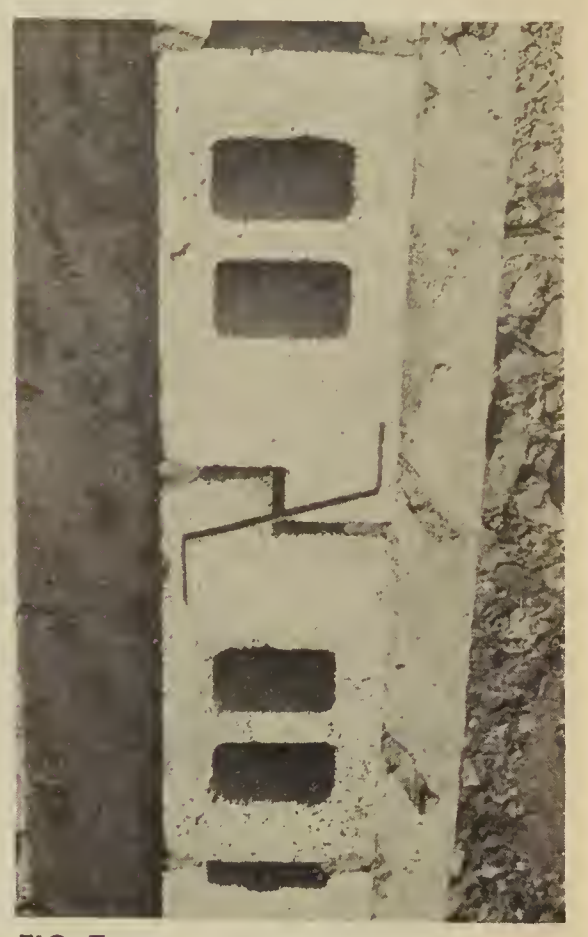


FIG. 7



Get a John Deere 35 h.p. 1010...More Tractor for your money

Value leaders for every type of farming

Your dealer may not display a full fleet like this, but he can demonstrate a "1010" that fits your type of farming. A couple of hours at the wheel will open your eyes to extra values engineered into a fast-working, easy-handling "1010."

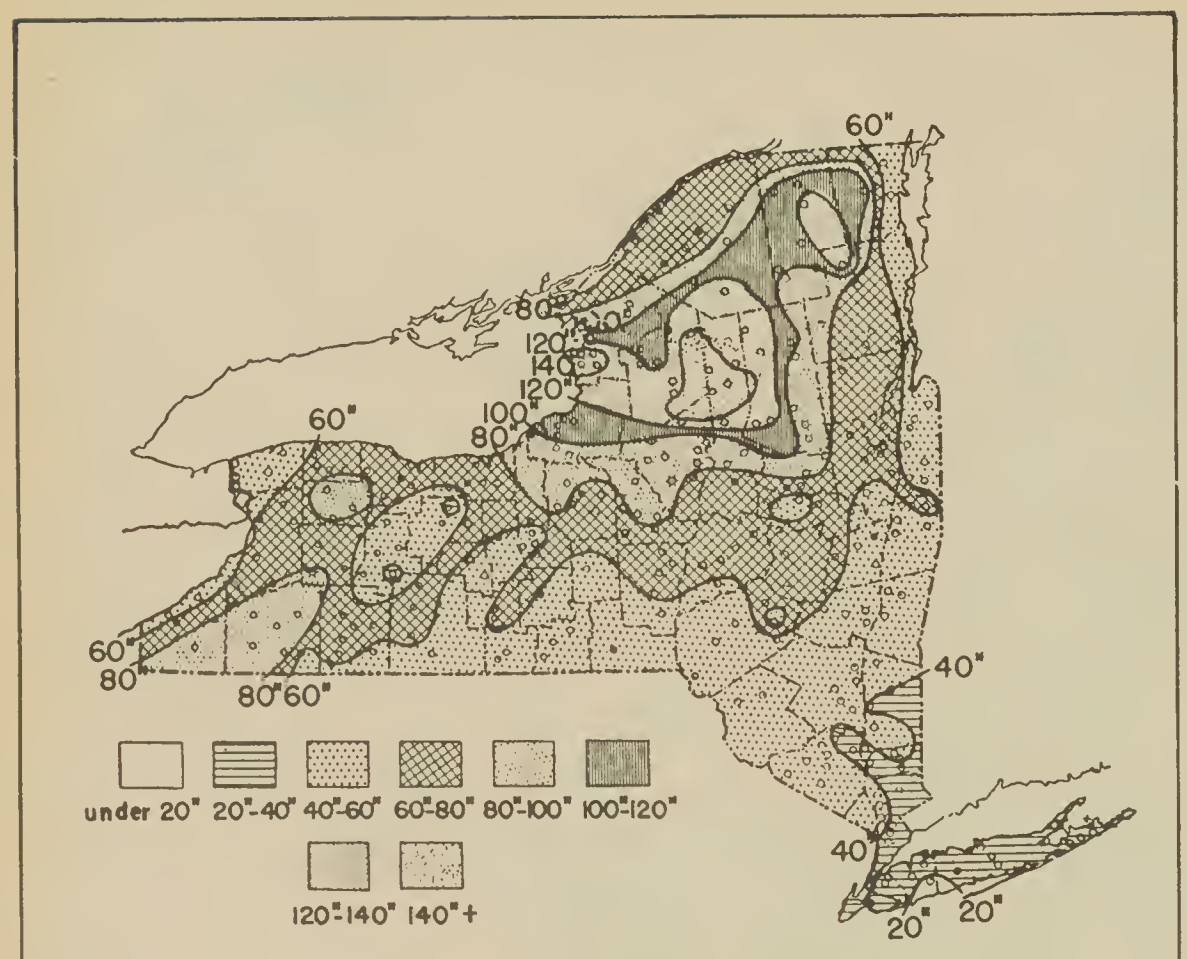
These lowest-priced tractors in The Long Green Line are John Deere quality all the way. Extra value shows up in extra built-in weight for traction on tillage jobs; in massive parts for reserve engine power in tough spots, and for long service life; in variable-speed-engine efficiency for extra economy of gas or Diesel fuel on light jobs. Most models offer live independent 540-1000 rpm PTO; up to three independent live hydraulic circuits; power steering; deluxe armchair seat.

Without paying a big premium price, you can step out of the "run-of-the-mill" 35 h.p. class. Enjoy the satisfaction of owning a John Deere that fits your type of farming. Ask your dealer to demonstrate. Confidential credit available.

JOHN DEERE

Department A, Moline, Illinois

Choose from The Long Green Line of John Deere Tractors.



What's Your Mean Annual Snowfall?

Depends on where you live.

In the "snow belt" east of Lake Ontario, you can expect 140 inches or more! In southeastern New York 20 to 40 inches.

To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean!

For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.			
Olean	WHDL	1450 kc.			

Northeast Radio Network

Ithaca, New York

MILK PRICE DEBATE

BY AMOS KIRBY

New Jersey Editor

THE FUTURE of milk controls continues to hang in a very precarious position as dairymen start to move into 1964.

At the two-day public hearing held in November on the proposed reorganization of the New Jersey milk industry, Senator Wayne Dumont of Warren County stated that he could see the end of milk price controls. The hearing on the report of an advisory committee appointed by Secretary of Agriculture Phillip Alampi was discussed pro and con by producers, dealers, and representatives of milk wagon deliverymen. The Case Report prepared by management consultants was largely devoted to processing and delivery costs.

The major point that emerges is that New Jersey producers will continue to have a market at a price that is competitive with milk from other states.

Program — C. H. Fields, executive secretary of the Farm Bureau, recommended that if milk controls are to be abolished there be a transition period to enable producers to meet these lower prices which are bound to come. The United Milk Producers, the State Dairy Council, and others are firm in their position that the lifting of price controls can lead to economic disaster for many efficient producers.

Here And There

Dr. George Luke, economist at the College of Agriculture, reports that 1963 New Jersey farm income from livestock products was about the same as in 1962; at the same time, total cash receipts were up by about $4 million for the year.

Grange — Franklin Nixon, Vincentown, Master of the New Jersey State Grange, told the delegates at Atlantic City that since the $750 million bond issue has been defeated there is need for a broad base tax program to meet the growing needs of the State.

Returns — Dr. Walter A. Maclinn returns to the College of Agriculture as Extension specialist in food science. Dr. Maclinn has been research director for the Refrigeration Research Foundation.

School — A new type of farm labor management school is being conducted in Gloucester and Salem counties this winter. The duPont Company, one of the most successful labor—managed industries, is loaning Clayton B. Hill, Jr., chief supervisor of the training section at the Chambers Works, to conduct the schools.

Farm Show — Fred Jackson, State Department of Agriculture, announces that the theme of the Farm Week Show (January 27 through February 1) will be built around the State's tercentenary. The show will dramatize three centuries of people, purpose, and progress in agriculture. Director is Warren Cook.

Purely Personal

F. A. Raymaley — When F. A. Raymaley, Salem County, finished up his work with the Farmland Assessment project he stepped into the office of Director of Markets, State Department of Agriculture, succeeding the late Vinton Thompson, Burlington County. No one in New Jersey has a wider experience in the field of marketing than has Mr. Raymaley.



National 4-H winner John Wright, Edinburg, Pennsylvania (left) received a $500 scholarship from International Harvester president Harry Bercher at the recent Club Congress in Chicago.



Nine New York 4-H'ers have been named national winners at the 42nd National 4-H Club Congress in Chicago. Shown front, (left to right) are H. Russell Martin, Maryland; Karl Maki, Newfield; Leland Maki, Newfield. Standing in same order are: Bonnie Bushover, Medina; Ann Wehner, Rochester; Stewart Ketcham, Greenville; Nancy Drew, Schuylerville; Lois Miller, Eden; and Diane Barrigar, Winthrop.

4-H LIVESTOCK WINNERS



W. SAGE



D. SMITH



T. BLODGETT



M. MOORE

by H. A. Willman

To be cited as a New York State 4-H project champion in sheep, beef cattle, swine, or horse club work is one of the fine honors that may come to a boy or girl. The following four members were chosen for the 1963 State awards: Wayne Sage, Warsaw, Wyoming County, sheep; Timothy Blodgett, Sinclairville, Chautauqua County, swine; Donald Smith, Gasport, Niagara County, beef cattle; and Miss Marion McGowan (now Mrs. Moore), Oxford, Chenango County, horses.

Success Stories

Wayne Sage purchased his first sheep eight years ago. Since then he has expanded his flock to about 100 Dorset ewes, and has sold 235 head for market and breeding.

Besides Wayne's interest and success in raising sheep, he has carried such projects as poultry, tree planting, and feeding steers, and has served as an officer in his club.

Donald Smith bought his first two Angus heifers about six years ago. Now he owns four registered purebred Angus heifers, and has fed and marketed six choice baby beef steers since he started. Besides his Angus project, he raises hogs, and works with his father in growing more than 100 acres of grain and other field crops annually.

Timothy Blodgett received a Yorkshire sow pig from the Jamestown Kiwanis Club eight years ago, under an agreement to provide a gilt from her first litter to another 4-H member. Since then he has sold 258 weanling pigs, and has made money doing it. In addition, Timothy has raised several dairy heifers, planted trees, raised vegetables, worked with poultry and horses, attended judging tours assisted with numerous county 4-H activities, and has attended several events of state and national character.

Marion McGowan Moore's record has been one of high achievement and active participation since 1958. The excellence of her project records, her ability as a judge, her show ring successes, her program ideas and community leadership have been motivating factors in the development of her club and its members.

Others, Too

Besides the four State champions, the records of 52 other nominees closely parallel those of the champions.

The most complete 4-H sheep records were submitted by Alan Lewis, Chautauqua County; Carolyn Lant, Chemung; Ingrid Goodwin, Chenango; Douglas Dettenrieder, Fulton; Mary Ellen Eiss, Jefferson; David Barringer, Madison; Sandra Mather, Onondaga; David Hinman, Oswego; Conrad Cook, St. Lawrence; William Millspaugh, Seneca; and Ronald Heckman, Steuben.

Amont the top county 4-H hog projects were those prepared by Charles Sinclair, Genesee County; Robert Bickford, Livingston; Donald McAvoy, Niagara; Michael Poorman, Seneca; Donald Mitchell, Steuben; Arthur Gabrielse, Wayne; and Donald Jensen, Yates.

In the beef division, the most outstanding accumulative 4-H records were made by Linda Pearce, Cayuga County; Andrew Marchisio, Columbia; Thomas McCloy III, Cortland; Mike Trowbridge, Genesee; Ralph Keith, Madison; Robert Lederhouse, Niagara; Kathy Crowell, Ontario; John Woodworth, Orleans; JoAnn Nowiski, Otsego; Paul Bassett, Rensselaer; Royce Jones and Timothy Dennis, Steuben.

That many young people are doing a splendid job with horses in 4-H work is shown by the following list of 1963 "award of excellence" winners: Sandra Johnson, Broome County; Bonnie Hart, Cattaraugus; Lee Harkness, Chautauqua; Jane Silvernail, Columbia; Margaret Blatchley, Cortland; Lynda Reynolds, Franklin; Jack Belknap, Fulton; Loretta Anderson, Jefferson; Francis Coe, Lewis; Kathleen Downey, Livingston; Karen Smith, Niagara; Carol Langan, Ontario; Betty Kuhn, Rockland; Diane Leggett and Mary Ann Grienert, Saratoga; Janeane Reagan and Levon Olson, Steuben; Marjory Makarainen, Tompkins; Beth Carpenter and Diana Norton, Washington; Virginia Cumine, Wayne; and Martha Gibbs, Yates.

YOUR GLF CONSUMER PRODUCTS REPORT

why GLF Unico Redi-Grips outperform other snow tires



go where others fear to tread

With GLF Redi-Grips you'll never stop to worry about the weather.

These famous snow tires have extra depth for better grip, safer starts and quicker stops. A wider tread than 3 of the 4 leading makes. And dependable nylon cord for a tough carcass capable of withstanding high-speed torture tests without a whimper. Redi-Grips are that powerful, that quiet.

In fact, Redi-Grips are so rugged we don't bother with time or mileage limitations in our guarantee.

For instance: a pair of tough Redi-Grips have traveled more than 62,000 miles for Mr. Benjamin R. Williams of Alloway, N. J. More than twice the distance around the world! Through all kinds of weather, over all kinds of roads. And still going strong.

For people who will never use the extra life of the best snow tire made, we have the new, all-nylon GLF Uni-Trac. This 4-ply tire costs a few dollars less than Redi-Grip. That's because the Redi-Grip tread (up to 19/32") is slightly wider and a little deeper than Uni-Trac (11/32").

But Uni-Trac is tough enough to qualify for our unlimited guarantee, too. Drive your Redi-Grips or Uni-Tracs one year or ten. Your GLF guarantee protects you against defects and road hazards for the full life of the tire.*



Available in popular sizes, black or white sidewalls. Mounted free.

Buying winter tires this year? Just think of the extra traction and mileage you'll get with the snow tires that go where others fear to tread. Pick up a pair of Redi-Grips today, at your GLF, of course. *Cooperative GLF Exchange, Inc., Ithaca, N. Y.*

GLF Quality

QUALITY CONSUMER PRODUCTS

*pro-rated, based on remaining tread depth



You Get All 3

FROM YOUR HOFFMAN SEED MAN

1. Better Service

The Hoffman Seed Man is the keystone of a broad program of Hoffman service that ranges all the way from helping you plan for higher yields and better paying crops, right up to seed delivery. Chances are there's a Hoffman Seed Man located close to you.

2. Higher Quality

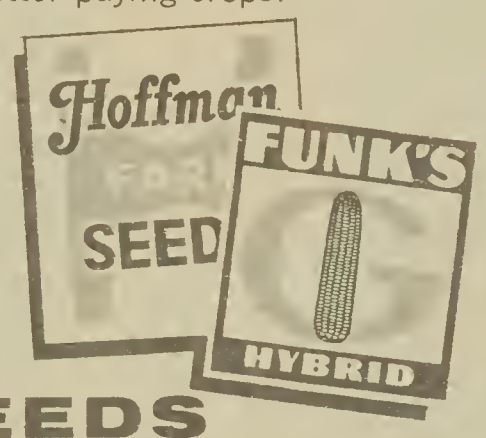
Each Hoffman variety is a proven high-yielder; each has been thoroughly farm tested. In seed production we take extra care all along the line . . . from selecting stock seed right through to laboratory testing, cleaning, bagging, storing—in fact, dozens of safeguards to keep quality high.

3. More Profitable Crops

The extra quality seed in every Hoffman bag brings a big dividend at harvest time . . . for Hoffman's painstaking care in seed selection and production pays off in extra bushels per acre. For 64 years, Hoffman Seeds have been the symbol for more abundant, better paying crops.

Your local Hoffman Seed Man stands ready to help in your crop planning, and to give you quick, dependable service on all your seed needs. Let us put him in touch with you soon.

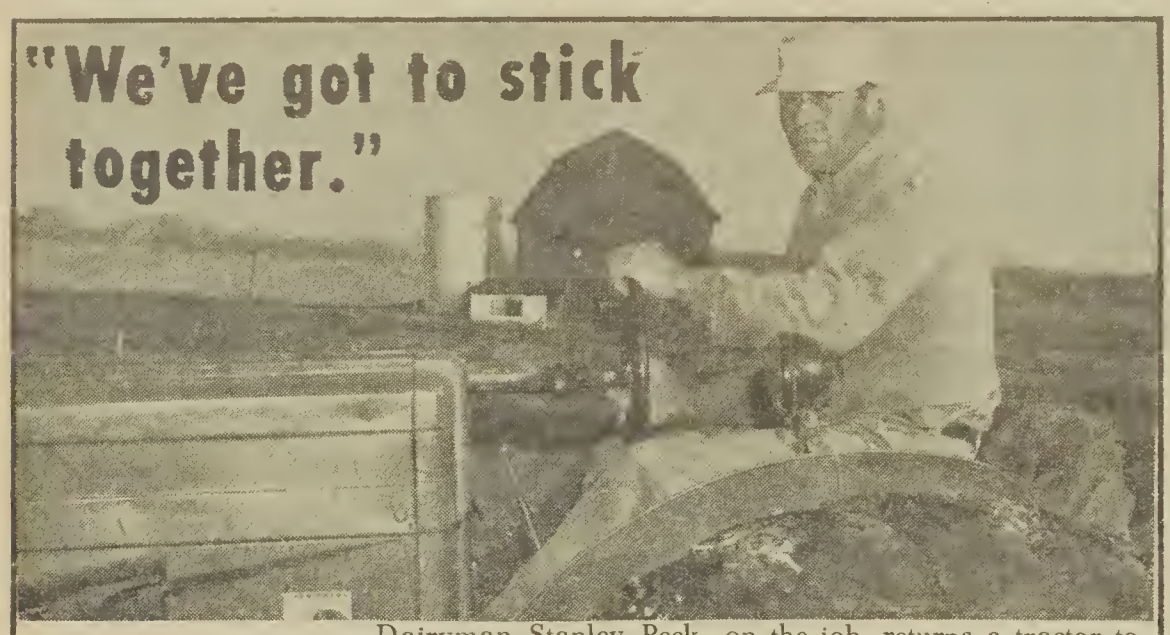
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FARM SEEDS

ALFALFA • CLOVER • OATS • HAY • PASTURE • FORAGE • COVER CROPS

"We've got to stick together."



Dairyman Stanley Peek, on the job, returns a tractor to the barn after fixing a fence.

Stanley Peek of Prattsburg, N. Y., a director of Keuka Milk Producers Cooperative for more than 10 years has this to say to his fellow farmers: "We've got to stick together to get our price for milk. The Bargaining Agency does a lot of preliminary work to get the bills that are of advantage to dairymen passed but the main service it provides is holding farmers and co-ops together."

To gain the many advantages of working together for mutual benefit in the dairy business, join a cooperative which is a part of

METROPOLITAN COOPERATIVE MILK PRODUCERS BARGAINING AGENCY, INC.

527 S. Warren St. Syracuse 2, N. Y.
Phone: HA 2-0186

MOVE AHEAD with a Cooperative Association of Milk Producers — over 80 cooperatives — united for improved milk marketing.

FARM DOLLAR GUIDE

USDA DECISION ON PRICE AND POOLING PROVISIONS in milk marketing for New York-New Jersey area include: (1) permitting a 10 cents per cwt. hauling charge for bulk milk (instead of 15 cents previously proposed) and making it permanent instead of temporary; (b) putting a uniform 5 cents per cwt. direct delivery differential on all milk (can and bulk) for zones of 70 miles or less.

In spite of drought in some areas, the past year saw A NEW RECORD FOR U. S. CROP AND LIVESTOCK PRODUCTION, 1% above '61 and 7% to 8% above the '57-'59 average. Even so, area harvested was 8 million crop acres less than the 303 million harvested in '61.

Compared to year ago, FEED GRAINS UP 7%; WHEAT UP 4%; DRY BEANS UP 10%; POTATOES UP 2.5%; MILK PRODUCTION (first 9 months) DOWN 1%; EGGS (first 9 months) same as '62; NON-CITRUS FRUITS UP 1% (apples Down 2%). For 1964, U. S. milk production estimated as about same as 125 billion pounds in '63. Dairy cow numbers have declined every year since 1944 with exception of '53.

JANUARY IS FARM INVENTORY TIME. An annual inventory gives more information for the time required than any other type of farm accounts. It tells what you owe and what you own, and a comparison with last year's inventory shows whether or not financial progress is being made.

A group of pork industry experts conclude that AT LEAST 100 TONS OF FEED PER YEAR must be ground and mixed on farm to justify buying necessary equipment. Seems logical that same volume applies to dairy cow feed. Hammermills are reported as most popular grinders.

BY A 2 to 1 MARGIN, New Jersey voters approved an amendment to the State Constitution requiring that land actively devoted to agriculture or horticulture "be assessed according to its value for such use."

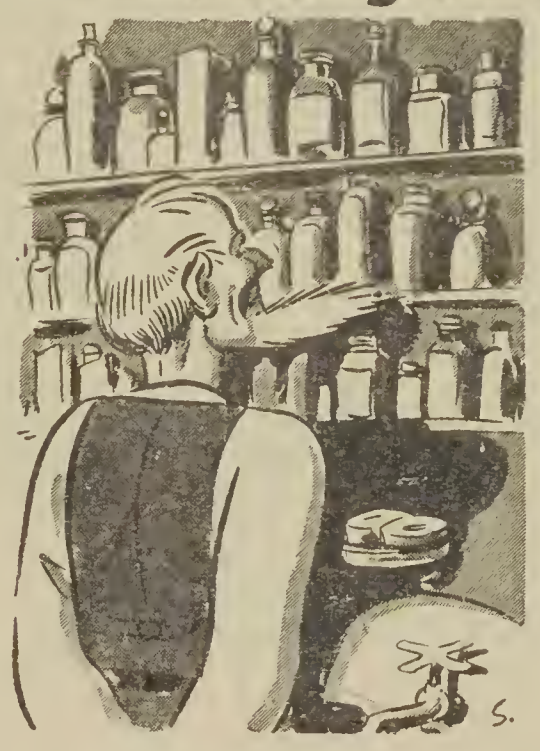
EVERY FARMER WITH NET PROFIT OF $400 OR MORE during year must pay Social Security self employment tax. It will be figured on schedule F of your Income Tax Form 1040. Low-income farmers with gross income $1,800 or less can choose to figure on actual net income or two-thirds gross income. If you hire farm labor, you must pay Social Security tax on them.

In Delaware, State College workers HAVE PUSHED CORN YIELDS to 225 bushels per acre. To do it they planted 18,000 plants of an outstanding hybrid per acre; used 2 tons of lime and 1 ton of 10-10-100 fertilizer per acre mixed to depth of 12 inches; used atrazine (pre-emergence) to control weeds; irrigated (supplemental) to equivalent of 20 inches of rainfall.

FAT LEFT ON RUBBER PARTS OF MILKING MACHINE lessens useful life. Sunlight also damages rubber. Care given to your milking machine will lengthen its life.

FOR $1 SENT TO NATIONAL MASTITIS COUNCIL, INC., 440 East Ogden Avenue, Hinsdale, Illinois, you can get copy of "Current Concepts of Mastitis."

The Song of the Lazy Farmer



It's funny how my stomach works, it has the most peculiar quirks; it never gives me any pain until my wife starts to complain. When she gives me some nasty job, sometimes my tummy raises hob. I double up with suffering and grit my teeth like everything. Then I head for the bathroom shelf for medicine to cure myself, and with a bottle and a spoon I act like I'm about to swoon; I gasp and take a dose or two and like as not before I'm through Mirandy has forgot that she had tried to get some work from me.

This is an old trick, I admit, but I get lots of good from it; Mirandy's wifely sympathy keeps her from getting wise to me. She may suspect that it's a fake, and yet she never dares to take a chance for fear I'm really sick; so her tune always changes quick, she fusses 'round just like a nurse until I almost think I'm worse. And when I say that I'm all right, Mirandy has had such a fright that she gives me a new command and tells me not to raise a hand. There's just one catch, which is that I won't get a piece of dinner pie.

GLF AND EASTERN STATES MERGER VOTE ON FEBRUARY 20

The directors of two of the nation's largest farm cooperatives have agreed on the desirability of following the trend toward merger that is so prevalent in farming itself. Farmers across the Northeast, recognizing the efficiencies possible with larger size, have long been "merging" small farms into bigger ones.

On February 20, members of Eastern States and GLF will gather at separate meetings to vote on the proposed merger. For Eastern States, February 19 and 20 were already scheduled as regular annual meeting dates at Springfield, Massachusetts. GLF folks will hold a special meeting, probably at Syracuse.

If the votes are favorable, both organizations will operate as usual under their respective names until July 1, 1964. An interim board of directors will serve until that date — the present 14-man GLF board of directors plus the existing 13-member executive committee representing the directors of Eastern States.

New Corporation

After July 1, a newly created corporation would begin operation of the combined organizations, under a new name as yet to be decided. The board of directors of the new corporation is expected to have 18 members, nominated from 18 districts covering the territory previously served by both organizations. At the moment, only negatives are known about where the executive offices of the new corporation might be — not in New York City, and probably not in either Ithaca or West Springfield.

What about the store setup? GLF has 250 local feed and farm supply stores plus 250 franchised dealers called agent-buyers; Eastern States has 112 service centers owned by the organization, plus 300 independently owned agencies. No change is contemplated in this setup except a different name to appear on the stores' signs come July 1. Of course, consolidation has been taking place within both organizations over the years, resulting in the closing of some stores for greater efficiency. This will continue, but not directly because of merger.

Since the new organization would be a stock corporation, GLF stockholders would be able to convert their stock to that of the new corporation. Eastern States patrons have historically left potential patronage refunds in the organization to provide its capital; they will be asked to buy stock in the new corporation if merger plans jell. Membership in the new corporation is expected to be restricted to those who can meet these requirements: actively farming, a stockholder, and a user of the cooperative's services.

In a joint announcement concerning the proposal, directors of the two organizations authorized this statement concerning advantages of merger:

"Studies completed recently indicate that there are significant economic benefits to be gained for members of both organizations from a complete consolidation.

"They show that operating costs of the combined cooperatives would be substantially less than the total costs of operating GLF and Eastern States separately. This would result in dollar savings to members of both cooperatives.

"In addition there would be improved purchasing and marketing strength; extension of some services or commodities now available only to one cooperative or the other; a broader base for research and development of the services which farming is requiring at an ever-increasing rate; and financial strength to provide those services."

Both organizations are backed up by extensive production and warehousing facilities for livestock feed, seed, fertilizer, farm chemicals, and farm hardware. The two cooperatives also maintain modern facilities for marketing eggs, grain, and other products grown by their members. The only major difference in services is that GLF unlike Eastern States, has an extensive system for distribution of motor fuels, heating oil, and other petroleum products.

American Agriculturist, January, 1964



That's the usual comment when people talk about the new MAC 15, the economy cuttin' champ for farm, forest, home, or camp. What's the MAC 15 got going for it? Weather-proofed ignition, automatic rewind starter, an extra large air filter, steel gas tank, and fingertip controls for added safety. The cylinder and head are built as a single unit. No gaskets to leak and steal power. A cast-iron liner in the cylinder means you can rebore, slip in a new piston and keep on cutting in years to come. MAC 15 value just doesn't wear out. McCulloch may build a saw to compete in price, but McCulloch will never compromise quality. See your dealer for a demonstration or write for free, color literature to McCulloch Corp., Dept. AA-1.

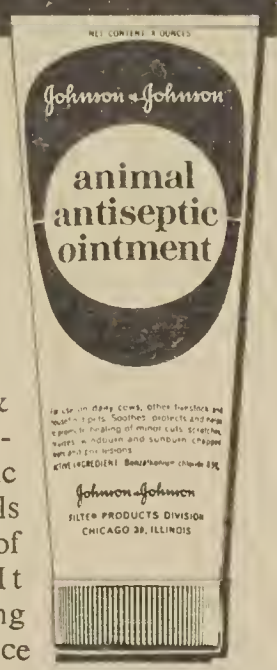
PRICE SHOWN IS MANUFACTURER'S SUGGESTED LIST WITH 17" MAC BAR • SPECIFICATIONS AND PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

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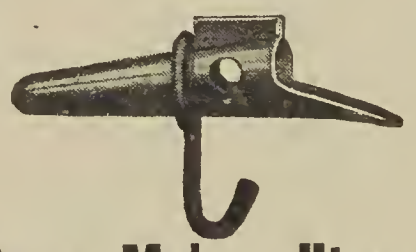
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Gayway Farm Notes

by HAROLD HAWLEY

VANISHING AMERICAN

One of our all-time favorite farm dogs has been and continues to be the Airedale terrier. Big and rugged with his heavy wire coat, he is an outdoor dog in any climate.

Before owning one, we had the usual conception of Airedales — that they were one-man dogs and apt to be "sharp." Our experience has been quite the contrary. While they have never shown the sad-eyed devotion of some of the spaniels, it's hard to imagine how we could have had over the years a more lovable and playful animal. The character trait that most endeared the breed to me (if one can generalize from a very few individuals) is that they have sense and restraint enough to be safe to have around daytimes, and yet could be tough to a stranger at night.

Woodchucks and rats seem to be the reason for living as far as an Airedale is concerned. We misjudged old Ben the first summer we had him. All previous dogs had brought their dead chucks to the house. When day after day passed and Ben never brought in any trophies, we began to wonder if the "vermin dog par excellence" hadn't been over-rated. Finally we learned the truth. Killing one quickly and then moving on to find another was his way of operating. On a good morning he could have two or three while another dog might be taking bows for his first one.

As the years went by, Ben had to travel farther and farther to find many woodchucks. Then, as age began to catch up, his range shortened and new holes began to re-appear in most of our fields. By the time he passed on this fall, the woodchuck population was back up pretty high. Just the spot to start a new dog next spring, I thought. Imagine my disappointment at not being able to find an Airedale pup!

For some reason there are few breeders of this old-style farm dog. There are, of course, a few show dog fanciers who go in for Airedales. Naturally, we are interested in a dog bred to be useful and not just pretty — if you can call an Airedale pretty! We are still looking, having turned down good prospects of other breeds in the hopes of yet finding a good Airedale pup. To all appearances, he belongs to that long list of vanishing Americans.

INVENTORY TIME — AGAIN

After last year's experience, some of us had either better quit taking inventory or start taking it right. We sold 25 tons more hay than we should have owned according to our January first count! Others have told of similar discrepancies.

The explanation is not as cock-eyed as you might imagine. For the first time in years, mows and barns got well cleaned out. An extra tier of bales in the bottom of



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a mow, a few tons from an old barn we no longer use, forty or fifty bales beneath some two-year-old straw, a couple of tons of old hay sort of overlooked because it was old — well, all that plus an honest mistake of a few bales here and there, and we found quite a lot of hay we didn't know we had as we sold it out last spring!

This year there should be little excuse for any sizable error. Probably the biggest guess will be with the corn. Part of it is hard and good and presents no problem; some which got caught by the early frost is light and chaffy, and it's anybody's guess as to how much weight there is in a given space. Certainly it seems doubtful if it will yield out more than a bushel of shelled grain for three cubic feet of ears.

Apparently many people do not find an inventory as useful as we do. In addition to figuring how much hay, straw, and corn we can sell based on the inventory, we need to know changes in our possessions as well as changes in the bank balance to know whether we are getting ahead.

I remember hearing a fellow say that he was always broke — but as long as his net worth kept increasing, he figured he was making some headway! And of course he was! Only by a careful count of all his assets and liabilities could he arrive at a reliable net worth figure.

It's just more than possible that the explanation of the rather sizable estates left by many farmers is tied up in the statement to which we have already referred. Over the years most of us have been pretty short on cash even though getting ahead as we kept paying off the debts and increasing the amount of stock, tools, and real estate which we own. Had all our increase in inventory been in the form of more cash, it's a safe bet more of the cash would have gone for personal things and personal pleasures which would be soon gone. The necessity of continually plowing earnings back into the business thus acts as forced savings for us.

INSURANCE

Have you totaled up your entire coverage lately? We just did and got a real jolt. Over the years, we've added a few hundred here and a couple thousand there as all property has gone up or as we have added a crib or a shed or bought another barn along with some land. Item by item, we don't seem to be carrying a bit too much. In fact, in no case could the building or produce or machinery be replaced for the insurance. Still, the total is high enough to cause us to ask ourselves if we can afford to carry so much insurance. We can't — but even more true, we dare not carry less.

What does seem possible is to shift some coverage to the buildings which would most urgently need immediate replacing. This surely includes our house and the main dairy barn. It's much more important that these be adequately covered than is the case with some cribs or barns and sheds on land away from home.

In any event, a good thorough periodic review of the coverage on all property is a must for all of us. Time so spent might well be like somebody's remarks about courting the right girl — "It's time well spent, and might make a big difference about your whole future!"

YE OLDE IMAGE

Credit or blame should go to the Madison Avenue boys who have made people in all walks and at all levels aware of their public image. Certainly, it is desirable that we give some thought as to how we look to others — as individuals, as groups, and as industries.

One has but to look at organized labor to see how a few corrupt people have given a bad name to labor unions, many of which are doing a fine and necessary job. The apparent selfish attitude of some of their leaders, with their disregard for the general good, hurts the whole labor picture. Obviously, the public image of organized labor isn't too good to some of us.

How about our farm groups? There is a great variation, but few would seem to be spending too much effort in this direction. It's true that actions speak louder than words, but the general public may not see the action — or at least not much of it. Better we tell them our intentions or ambitions, and assure them that what we do is for the general welfare as well as for our own.

Good public relations are hard for agriculture to achieve. Ours is a wide and diverse industry and actually little understood by most. In addition, through our organizations we say we are for less government in agriculture. Yet, in practice, many of us have our hand out to Uncle Sam for all that we are able to get.

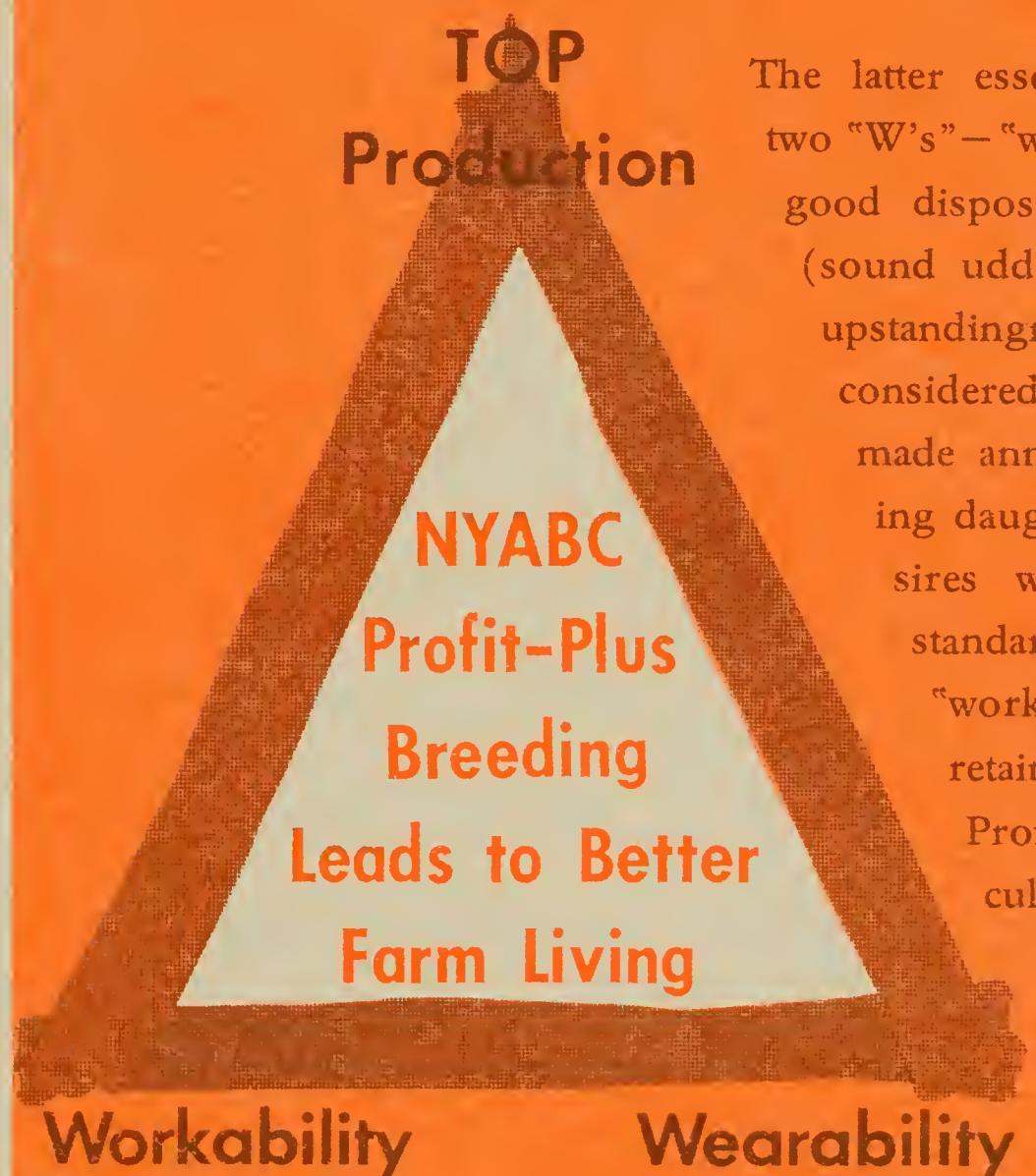
It is a monumental job to overcome the impression that what people do is what they really want to do. What they say they want doesn't sound so loud nor ring as true as their actions.

More and more, it seems that good public relations and a good public image for agriculture begin right at home.

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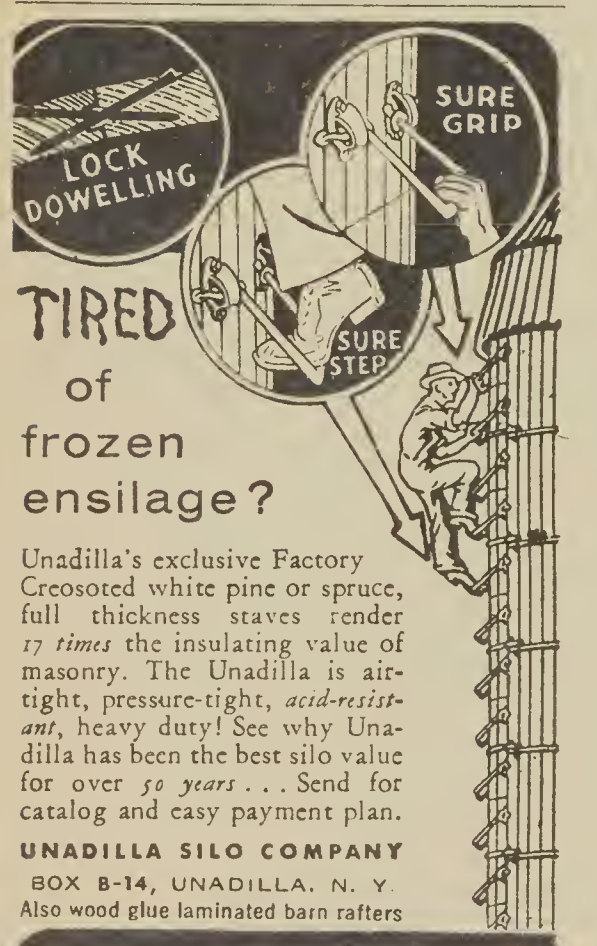
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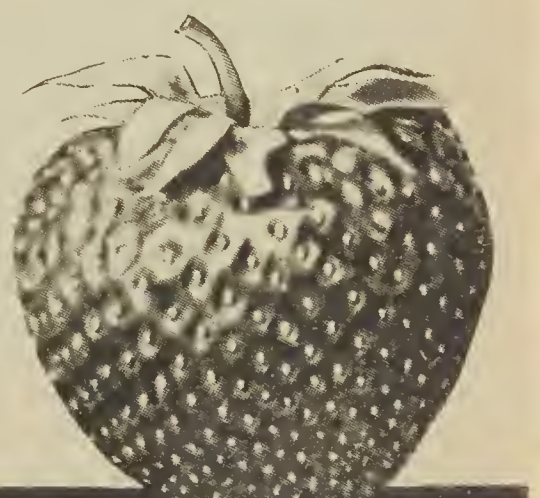
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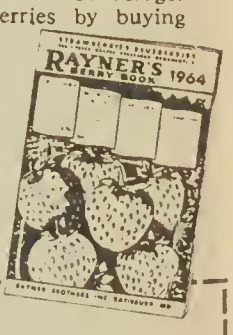
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CESSPOOLS, SEPTIC TANKS — outhouses, clogged drains cleared. Deodorized without digging and pumping. Sursolvent reduces contents, reclaims leachability. Old systems made to work like new. Free details. Electric Sewer Cleaning Co., 264 Lincoln Street, Allston 34, Mass.

PARTS FOR STOVES -furnaces, coal, oil, gas, electric. Empire Stove Co., 793 Broadway, Albany, New York.

QUICK-JOHN — For septic troubles, outdoor toilets. New, exclusive enzyme-bacterial formula digests solids, grease, paper, etc. Ends backups, odors, pumping, digging. Harmless to plumbing. Six treatments in handy flush packets. $2.50 postpaid. 14, $4.50. Money back guarantee! Ryter, Co., Madclia 20, Minn.

"WILL FORMS" — Five Legal Will Form Blanks, complete with instructions, $1.00 postpaid. Fully Guaranteed! Brugenheimer Company, Box 158-N77, Lexington, Massachusetts.

QUALITY WATCHES from West Germany, 17 Jewel, self-winding, calendar watches only $22.00 airmail including leather band. Clocks from Holland only $3.95 postpaid. Every product is factory new and fully guaranteed. Details free. Write to—Anderson Imports, Box 20342-B, Denver, Colorado 80220.

CASH and S&H Green Stamps given for new and used goose and duck feathers. Top prices, free tags, shipping instructions. Used feathers, mail small sample. Northwestern Feather Co., 212 Scribner, N.W., Grand Rapids, Michigan.

YOUR CHURCH OR GROUP can raise $50.00, at same time get 40-piece set charming Blue Willow Dinnerware, easily, quickly. Have 10 members each sell only 10 bottles my famous $1 Double-Strength Imt. Vanilla Flavoring. Keep $50.00 for treasury, get Dinnerware FREE. No money needed. Anna Wade, Dept. 9AB2, Lynchburg, Va.

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LEG SORE SUFFERERS—Send for free book on proven Viscose for relief of pain and aches of leg ulcers, swelling, itch, rash due to deep vein congestion. Works as you walk. Viscose Co., 100 West Chicago Ave., Dept. J.A., Chicago 10, Illinois.

AFRAID OF LIGHTNING? Don't be—call us for free inspection Survey and exact cost on complete lightning rod service. Morse-Collins, Inc., 148 Coddington Road, Ithaca, N. Y. Phone AR 2-8550.

SONGPOEMS WANTED — Collaborate with professional songwriters equally. Share royalties. Songwriters Contact, 1619-G Broadway, New York 19.

WOMEN'S INTEREST

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YE OLDE WOOL SHOPPE: Samples sent upon request. Mail orders filled promptly. Regular yard goods, remnants, rug material, coatings, suitings and skirt material. Linings and knitting yarns. Kezar Sales Corporation, Dept. H, Kezar Falls, Maine.

TONS BRAIDING—hooking woolens 50¢, 75¢ pound; bright blanket pieces 50¢; colorful corduroy rug strips 10 pounds $2.50; large rug cottons 10 pounds $2.00; percale, silk 4 pounds $1.00. Postage. Joseph Demenkow, Abington, Massachusetts.

IT'S NEW—40 ft. pinless clothes line. No pins needed. Anodized aluminum, rustproof. Guaranteed. $2.98 Postpaid. Wil-Lo Enterprises, Corfu, N. Y.

YOUR CHURCH OR GROUP can raise $50.00 and more, easy and fast. Have 10 members each sell only twenty 50¢ packages my lovely luxurious Prayer Grace Table Napkins. Keep $50 for your treasury. No money needed. Free Samples. Anna Wade, Dept. 9AB1, Lynchburg, Va.

SEND 50¢ with stamped, self-addressed envelope. Will mail 3 of my favorite recipes. Esther Short, Almond, N.Y.

STAMPS & COINS

ATTENTION STAMP COLLECTORS — The "Delaware Valley Stamp Exchange Club" is open for membership. For full details write: Geo. W. Lamborne, 265 Nassau Ave., Paulsboro, New Jersey, 08066.

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MINK $25—Bred females April delivery. Book $1.00. Saxton Mink Ranch, Box 418, Bemus Point, N. Y.

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SINGLE MAN desires job on dairy farm helping with chores and barn work. Some experience. Willing to work for low wages. Ready to leave immediately. Box 514-TB, American Agriculturist, Ithaca, N. Y.

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FREE PICTURE FOLDER -"How to Make $3,000 Yearly, Sparetime, Raising Earthworms!" Oakhaven-5, Cedar Hill, Texas.

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RAISE ANGORA- New Zealand Rabbits, Fishworms on $500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio.

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MAKE BIG MONEY taking orders for Stark Dwarf Fruit Trees. Everybody can now grow Giant Size Apples, Peaches, Pears in their yards. Also Shade Trees, Shrubs, Vines, Roses, etc. Outfit free. Stark Bros., Desk 30214, Louisiana, Missouri.

NURSERY STOCK

PEACH, APPLE TREES—low as 20¢. Cherries, pears, plums, nut trees, strawberries, blueberries, dwarf fruit trees. Grapevines 10¢. Shrubs, evergreens, shade trees, roses 25¢ up. Quality stock can't be sold lower. Write for free color catalog and $2.00 free bonus information. Tennessee Nursery Co., Inc., Box 1, Cleveland, Tenn.

1,000 NURSERY ITEMS — Tree Seeds (350 Varieties), Baby Evergreens, Seedlings, Trees, Shrubs, Fruit Trees, Plastic Pots, Supplies, etc. Catalog. Mellinger's, North Lima 42, Ohio.

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MUTUAL MEETS

The 10th Annual Meeting of the Mutual Federation of Independent Cooperatives is scheduled at the Hotel Syracuse, Syracuse, New York, on Thursday and Friday, January 30-31. The meeting will open on Thursday morning at 10:30 a.m. with registration and a coffee hour in the East Room of the Hotel. This will be followed by a buffet luncheon served in the Grand Ballroom.

The annual business session will open at 1:30 p.m. on Thursday, when the President, John P. Spofford, will deliver his report, followed by a report of the General Manager and the election of officers for the year 1964. The guest speaker on Thursday afternoon will be Mr. Clarence Girard, Deputy Administrator of Regulatory Program, the U. S. Department of Agriculture, Washington, D. C.

PULLETS

HI-PRODUCTION LAYERS—White Leghorn pullets $26 per 100. Harco Red pullets and Buff sex link pullets $25-100. Broadbreasted Cornish broiler cross $11. 100% guaranteed. Free catalog. Noll Farms, Sheridan, Pa.

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Chesters—J. Harold Little, 1009 York St., Hanover, Pa.
Durocs—Clyde W. McConaughey Sr., Smicksburg, Pa.
Hampshire—Ralph Dietz, Palmyra, Pa.
Polands—Lawrence L. Showers, Milton, R2, Pa.
Spotted Poland—C. Warren Leininger, Denver, R2, Pa.
Yorkshires—George E. Cogley, Ronks, R1, Pa.

CAN YOU HELP?

Mrs. Joseph Burgher, Krumville, N. Y. would like to purchase Vol. I of Health Knowledge, published by Domestic Health Society, Inc. of New York, copyright 1920 or 1921.

If you have any odds and ends of yarn or items that might be unraveled, Miss Dorothy Perkins, P. O. Box 84, Hampden, Me., would appreciate your sending them to her. She would also like Knit-O-Graph directions, and directions for making children's stockings.

Norman Carlson, 216 Delaware Ave., Ithaca, N. Y., would like old recordings of Carl Butler & Webster Bros., Hylo Brown, and the Stanley Bros.



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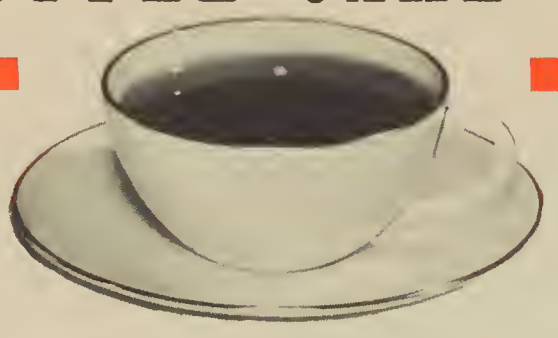
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1964 CATALOG *now ready*

YEAST COFFEE CAKE CONTEST







Co-directors of the Yeast Coffee Cake Contest are American Agriculturist Home Editor Augusta Chapman and Mrs. Dorothy Scofield, Otego, N.Y., chairman of the State Grange Service and Hospitality Committee. Over 1,000 Pomona and Subordinate Grange S. & H. chairmen will have charge of the local and county contests.

Is there anything that quite compares with coming into the kitchen on a chilly fall or winter's day and smelling the tantalizing aroma of yeast bread or rolls baking? The only thing I can think of that's better is eating them after they're out of the oven!

Homemade bread has been featured in our American Agriculturist — New York State Grange baking contests several times, so for 1964 we're trying something a little different, but just as delicious — yeast coffee cake. Make your favorite version — round, oblong, ring or braid, filled or plain, but remember it must be made with yeast. The quick bread-type coffee cakes are not eligible for entry in the contest.

This is the 29th annual baking contest that American Agriculturist and New York State Grange have sponsored together, and we think this year's competition will be one of the most interesting of all. I can hardly wait to see the 53 luscious looking coffee cakes at next fall's State Grange Session! As usual there will be three parts to the competition: first, the elimination contests starting this month in the Subordinate Granges, next the county contests, and then the big state finals next October.

Easy Rules

The contest rules are easy.— Here they are:

1. Each contestant must be a member of a New York State Subordinate Grange. All Grange members (men and women) are eligible, with the exception of those who are professional bakers.
2. Each contestant will enter one yeast coffee cake, of a size appropriate to the type.
3. Coffee cakes made with yeast dough mix are NOT eligible for entry in this contest. The quick bread-type cakes are also NOT eligible.
4. The winner of each Subordinate Grange contest is to compete in the county contest with other Subordinate Grange winners, and the Pomona contest winners are to compete together in the finals at State Grange Annual Session next fall.

Contest Directors

Mrs. Dorothy Scofield, Otego, New York, Chairman of the State Grange Service and Hospitality Committee, and Mrs. Augusta Chapman, American Agriculturist's Home Editor, will direct the contest for the entire state. Assisting them will be two other members of the State Committee, Mrs. Agnes McHeffey of Heuvelton, New York, and Mrs. Lizzie Houck of Dundee, New York, plus nearly 1,000 Pomona and Subordinate Grange Committee Chairmen.

Lots of Prizes

There will be prizes all along the line. Each Subordinate and Pomona Service and Hospitality chairman will arrange prizes for her contest. Also, there will be prizes contributed by American Agriculturist advertisers for the county contests. Of course, the pot of gold at the end of the rainbow will be the state contest prizes that will go to the top 10 winners in the finals next fall!

If you were at State Grange at Elmira last year, you saw all the prizes that went to the winners of the Gingerbread Contest — four beautiful ranges and groceries enough to lighten the family food budget for quite a while.

This year's prizes will be just as exciting and will be announced in American Agriculturist sometime this spring, as soon as our list of donors is complete. As for cash awards, New York State Grange will again give $159 in entry prizes ($3.00 to each county winner taking part in the finals), and American Agriculturist will award $107 to be distributed among the top 15 winners.

Now is the time to join in the fun. The first thing for you to do is find out from your Subordinate Grange Service and Hospitality Committee chairman the date of your local contest. Then study the score card on this page and use it as a guide in baking your coffee cakes.

Don't stay out of the contest because you think you won't win. You never can tell! It's a fact that most of the state winners can't believe their ears when they find themselves at the top. "I never won anything before in my life!" is heard over and over again.

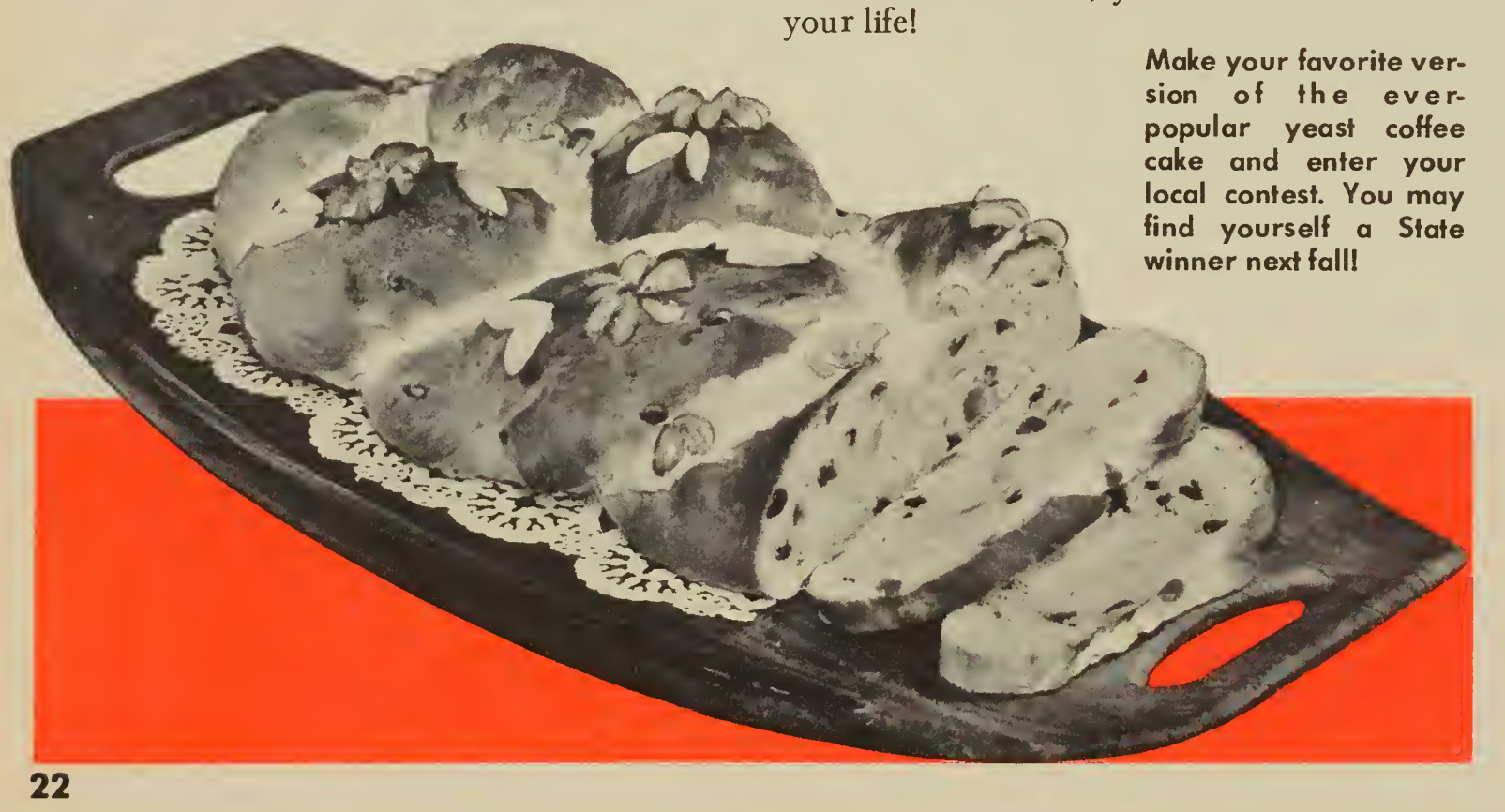
So, find out when your Subordinate contest is to be held, and start right now to practice making a perfect coffee cake. Just think how popular you'll be with your family, for no one ever tires of home baked yeast products. You'll have fun, and if you turn out to be one of the state winners, you'll have the thrill of your life!

SCORE CARD

Eoch contestant will enter one yeost coffee cake, of o size oppropriate to the type. For the purpose of this contest, ony yeost coffee cake mode with breod flour or oll-purpose flour is eligible. Coffee cakes made from mixes (yeast dough) ore NOT eligible. Quick bread-type coffee cakes are olso NOT eligible.

	Perfect Score	Judges' Score
GENERAL APPEARANCE	20	
Size (5). Appropriote for type of yeast coffee coke.		
Shope (5). Symmetricol in design ond with good proportions, neither too flat nor too high for coffee cake type.		
Decorations (10). Attractively and uniformly ploced, kind and type suitoble to coffee cake, not over-decorated.		
CRUST	15	
Color (5). Top ond bottom o very neorly uniform, bright golden color.		
Thickness (5). Top and bottom crusts uniformly of about 1/8 inch thickness.		
Texture (5). Crisp (not steomy); tender (not tough or hord); smooth (without bubbles, lumps, or cracks).		
CRUMB	30	
Color (6). Uniform but charocteristic of ingredients used — no light or dork streaks.		
Lightness (6). Well raised, not heavy for size and type.		
Grain (6). Cells smoll, even, and uniform in size throughout — no heovy or dense streoks, free from large air bubbles.		
Elosticity (6). Springy when lightly pressed; tender, not solid or doughy.		
Moisture (6). Slightly moist, not dried out.		
SPECIAL INGREDIENTS	10	
Kind (5). Characteristic for type of coffee cake; pleosing combination if more than one used; suitobly cut.		
Distribution (5). Any special fruits, nuts, or spices evenly distributed through coffee cake, not just at surfoce or bottom.		
AROMA and FLAVOR	25	
Aroma (10). No suggestion of sourness of yeast or undesiroble fat in crust and crumb; pleasant, slightly yeasty frogronce.		
Flavor (15). Pleasing, well baked flavor with moderate salt and sugar flavor and without undesirable fat flavor; special ingredients should not overpower basic yeast dough flavor.		
TOTAL	100	

Photo: Robin Hood Flour



Make your favorite version of the ever-popular yeast coffee cake and enter your local contest. You may find yourself a State winner next fall!



VISITING

with

Home Editor Augusta Chapman

Hello — and a very happy, healthy, prosperous 1964 to all of our Home Department friends.

A New Year's poem that I heard long ago has stayed with me through the years. I never knew who wrote it — perhaps one of you will know. The poem went something like this:

He came ta my desk with quivering lip —
The lessan was dane.
"Teacher, have yau a new leaf far me?
I have spailed this ane..."
I taak the ald leaf, stained and blatted,
And gave him a new ane, all unspatted,
And inta his sad eyes smiled,
"Da better naw, my child."

I came ta the thrane with quivering saul —
The ald year was dane.
"Father, hast thau a New Year for me?
I have spailed this ane..."
He taok my ald year, stained and blatted,
And gave me a new ane, all unspatted,
Then inta my sad heart smiled,
"Da better naw, my child."

Each January I am thankful for the new year that lies ahead with its opportunities, its pleasures, its happiness — yes, even for its difficult times, and the experiences which make us a bit stronger and a little more understanding of ourselves and each other.

Easier Snow Shoveling

About a year ago a new product, "No-Stick," was put on the market, and intended to make life easier for the homemaker by preventing food from sticking to oven walls, grills, etc. Now, it is reported that we may have trouble locating the aerosol container of No-Stick this winter because the men have learned it also prevents snow from sticking to snow shovels and snow blowers. Sprayed on the shovel, it's especially helpful when the snow is the heavy, wet, sticky variety. No-Stick is available in hardware, department and variety stores.

Up In Smoke

When we visited in November, we talked about the terrific waste caused by forest fires. Another form of waste, not only of money but also of health, and one about which I have some pretty strong feelings, is this business of cigarette smoking and lung cancer. Despite all the articles and statistics we've seen in recent months which, it would seem to me, should conclusively link the two, Americans smoked about 510 billion cigarettes in 1962 (U. S. Dept. of Agriculture figures). This is 8 billion more than were smoked in 1961, and I'm willing to hazard a guess that the figure will be still higher for 1963. If so, it will be the seventh consecutive year in which cigarette consumption and output have set a new record.

A release from the Institute of Life Insurance states the following:

1. Cancer now causes almost two out of every ten deaths among ordinary life insurance policy holders.

2. The cancer death rate has risen about six times faster than the toll from heart disease during the past two decades, and is the only major cause of death showing a substantial rise among men between the ages of 65 and 85.

3. The rise in cancer deaths among these older men has been due mainly to a marked increase in fatal cancer of the lungs and respiratory system. Respiratory cancer now causes one in every five cancer deaths among men.

I have been told many times that, never having acquired the tobacco habit, I know nothing about what is involved in breaking it, and this is undoubtedly true. The fact remains, however, that many people have been sufficiently concerned about the danger to their health, and even their lives, to wage the battle and come out on top. As one friend said to me, "I practically climbed the walls for a couple of weeks, but I quit!" These folks have my utmost admiration and respect.

The thing that troubles me the most is how in the world our sensible, clear thinking young people can continue in ever increasing numbers to take up this deadly habit!

I know how useless it is to leave printed material on cigarette smoking and lung cancer around the house, hoping it will be picked up and read. (Of course, if it were, I wouldn't be given the satisfaction of knowing it anyway.) But there are two leaflets published by our New York State Department of Health which give briefly and unemotionally the facts of the issue.

The one pamphlet, "Smoking... it's up to you," is written for teenagers, and the other one, "Memo to adults about CIGARETTE SMOKING," as the title indicates, appeals to grownups. Copies may be obtained by simple addressing your request to New York State Department of Health, Albany, N. Y.

MEN PAST 40

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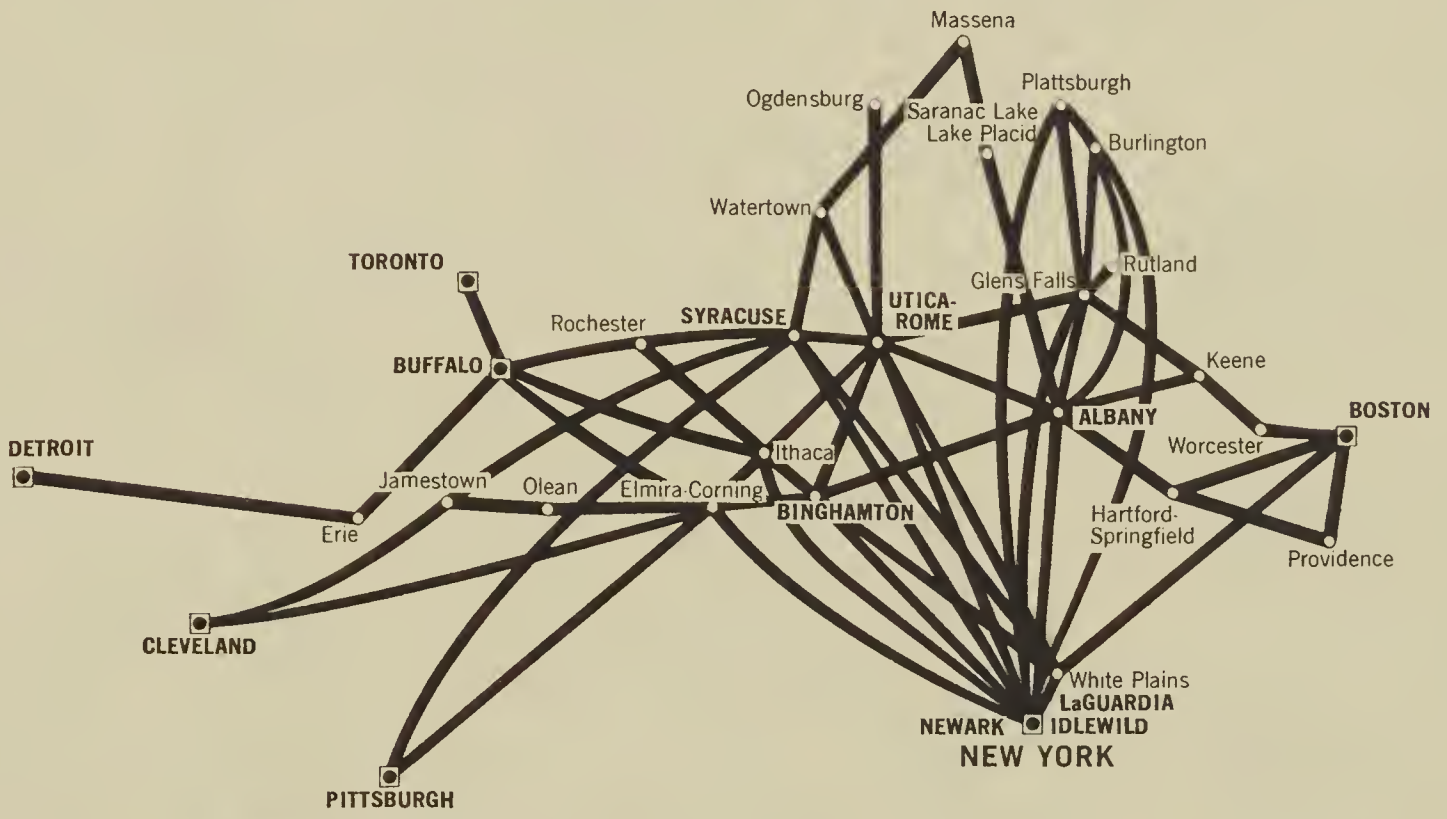
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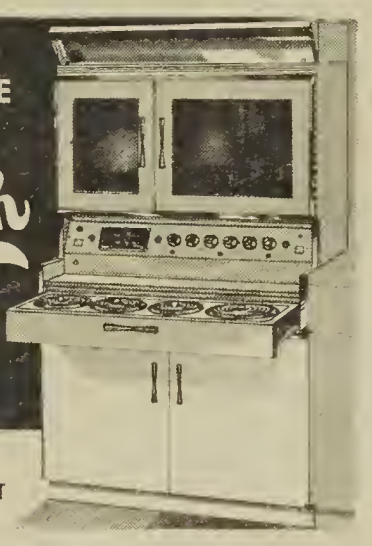
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WINTER NIGHT SUPPER

By Alberta D. Shackelton

Are you looking for an easy-to-prepare, filling supper to serve your family one of these cold winter nights? Why not use the menu suggested below and make the soup and cookies in the morning, or even the day before. Then, you'll have plenty of time to fix the salad, set the table, and make the cocoa while the popovers are baking. And we're sure everyone will agree that supper just seemed to "hit the spot"!

fork or toothpick to let steam escape and allow inside to dry a little. If you like popovers still drier inside, turn off oven heat and leave popovers in oven with the door ajar.

Popovers should be firm, brown, and when tapped, sound hollow. Remove from pan and serve with plenty of butter. Popovers may also be used as shells and filled with various creamed mixtures for main dishes.

Steaming bowls of rich Vegetable Soup

Apple, Grape and Celery Salad

Giant Popovers with Maple Syrup or Jam

Date-Nut Drop Cookies **Cocoa or Milk**

VEGETABLE SOUP

2 pounds beef shank (bone split)
2 quarts cold water
1 package frozen mixed vegetables
4 large stalks celery, sliced
2 medium potatoes, peeled and cubed
2 small to medium onions, if desired
3 teaspoons salt (about)
1/8 to 1/4 teaspoon black pepper
1 to 2 pints canned tomatoes

Combine beef and water in a large kettle. Cover, bring to boil, and simmer 2 to 3 hours, or until meat is tender. Add prepared vegetables, salt and pepper; simmer 20 to 30 minutes, or until vegetables are tender. Add tomatoes, any additional seasoning desired, and reheat for serving.

If you like your vegetable soup thickened a little, stir into the hot mixture 1 to 2 tablespoons flour mixed smooth with a little water, and bring soup to boiling. I like to use oatmeal for thickening soup slightly, and add 2 tablespoons of quick cooking oatmeal with the tomatoes.

If you like a fat-free vegetable soup, allow kettle of soup to cool thoroughly until fat collects on top and hardens. Remove layer of fat before reheating soup for serving. Recipe makes 3 quarts soup.

Note: In place of the vegetables suggested above, use your own favorite vegetable combination.

GIANT POPOVERS

5 eggs
1 2/3 cups milk
1 teaspoon salt
1/3 cup salad oil
1 2/3 cups sifted all purpose flour

Grease well 10 deep 8-ounce oven glass or earthenware custard cups and stand them on a baking sheet. Combine ingredients and beat together until smooth with a rotary egg beater or an electric mixer (about 3 minutes). Pour batter into the well greased cups, filling ½ to ¾ full. Bake in a preheated hot oven (400) for 50 minutes. Do not open oven door during baking period.

Five minutes before baking time is up, prick each popover with a

DATE-NUT DROP COOKIES

½ cup soft butter
1 cup brown sugar, packed
1 egg
¼ cup sour milk or buttermilk
1¾ cups all purpose flour
½ teaspoon baking soda
½ teaspoon salt
1 cup dates, cut up
½ cup coarsely chopped nuts

Cream butter, sugar, and egg thoroughly. Stir in sour milk or buttermilk. Sift together and stir in the flour, baking soda and salt. Mix in the dates and nuts. Drop rounded teaspoons of the dough about 2 inches apart on a baking sheet. Bake 8-10 minutes in a medium hot oven (400°). Makes about 3½ dozen cookies.



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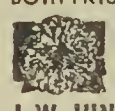
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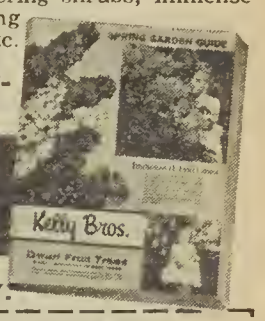
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1964 CATALOG *now ready*

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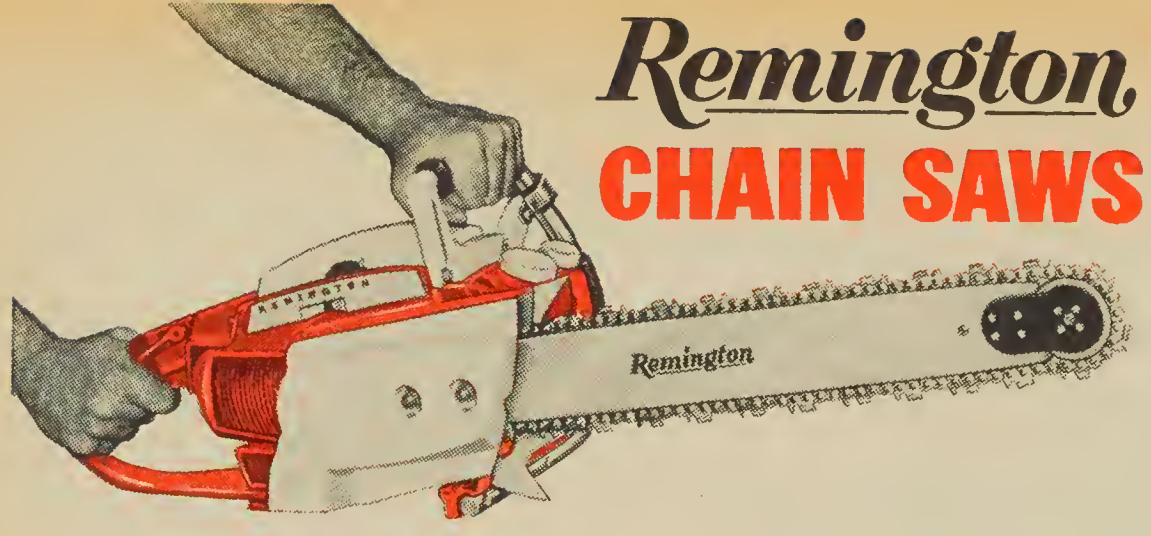
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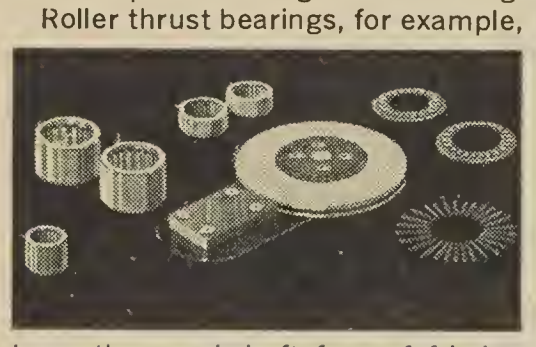


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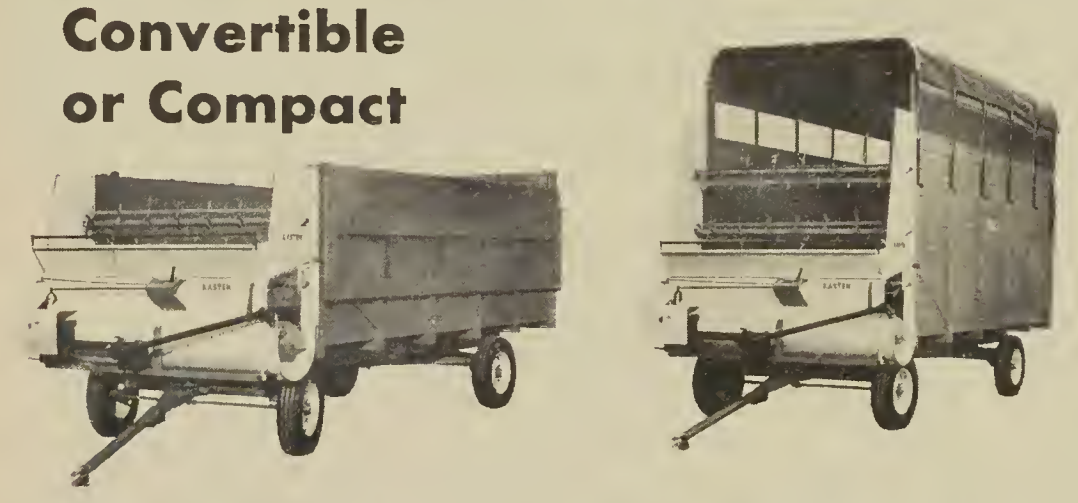
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PERSONAL FARM EXPERIENCE

CORN CRIB

We grow quite a bit of corn to husk, as well as to put in the silo. Recently I built a corn crib with wire netting to hold 3,500 bushels. It is 26 feet long, 15 feet wide, and averages 12 feet high.

This, of course, would be too wide for corn without drying. We run a big fan during the day for about three weeks when the temperature is 40 degrees F. or above. We take the corn to a mill, grind it along with some oats and soybean oil meal, a little distillers' grain, and some molasses. The mixture is about 75 percent corn, and this home-grown grain makes up about two-thirds of the feed we give to the cows.

I milk 48 to 50 milkers and about the same number of young stock, and hire one man full time. We feed hay to the cows all summer, and steadily have depended on pasture less and fed more in bunks or in the barn. — Robert Everingham, Lafayette, N. Y.

ROADSIDE STAND

A good many years ago we began to sell some vegetables and eggs to people with camps on a nearby lake. They came and wanted to buy, and it was difficult to turn them down. Gradually this business increased, and four years ago we built the present stand and find it a profitable part of our business. It keeps one person busy all the time, and sometimes as many as four on weekends.

We grow about six acres of potatoes, all kinds of vegetables, and produce some eggs for sale at the stand. We buy fruit, maple products, and some eggs for resale.

Of course, there is more traffic on our road since it was improved and it has become practically a main highway. We have parking space across the road, and figure on giving the customers their money's worth. — Harry Underwood, Little York, N. Y.

NEW SILOS

Back in 1949 I built a pen stable, and a big trench silo 125 feet long and 10 feet wide at the base. We filled it for two years, but there was a lot of waste, and the trench proved to be somewhat of a snow trap.

In 1951 I built two wood stave silos 14' x 30', but after visiting some farms with Harvestores this past summer, I bought and put up two 20' x 60', on the basis that there would be no spoilage, that packing of silage was unnecessary, and the fact that you can feed from this type silo any time and add to it at any time. I filled one with haylage last summer.

Another reason for buying more silo space was that I expect to increase my corn acreage from 30 to 40 or 50 acres; I plan to cut my feed bill by growing and feeding more and better roughage.

We are putting in free stalls in the pen barn, and installing an automatic auger feeder. Back in '49 I had about 30 cows; the herd has been increased to 60, and we now have a two-man operation.-

Chester Gordon, Lawyersville, N. Y.

DAIRY STEERS

We saved all the bulls from our Holstein herd between August and December 1962. They were castrated and dehorned at the same time we vaccinated the heifers — when they were all about six to seven months of age. We continued to run them with the heifers all last summer, feeding them primarily on haylage.

We'll fatten the steers up on corn silage, high moisture corn and cob meal, and a protein supplement. We'll plan to sell them at a weight of somewhere around 1,000 to 1,100 pounds.

We looked at the livestock economics in the summer of 1962, and decided to go to dairy steers rather than beef feeders. However, it's just an experiment; we didn't save any bull calves in 1963 for the same purpose — Kenneth Noble, Noblehurst Farms, Linwood, New York

Dates to Remember

January 15 — Annual meeting, New York State Agricultural Society, State Office Building, Albany. Banquet, Manger DeWitt Clinton Hotel.

Jan. 16-18 — Annual Jefferson County Agricultural Congress.

Jan. 20-23 — Dairymen's Seminar, Amherst, Mass.

Jan. 20-24 — Beef Cattlemen's Short Course and Banquet, Cornell University, Ithaca, N. Y.

Jan. 21-23 — Three-day annual meetings of New York Horticultural Society, Potato Club and Vegetable Association, Rochester War Memorial, Rochester, N. Y.

Jan. 22-24 — 25th Annual Farm Electrification Institute, University of Massachusetts, Amherst.

Jan. 26-29 — New York State Holstein-Friesian annual meeting, Elmira, N. Y.

Jan. 27-Feb. 1 — Farmers Week, Rutgers University Armory, Trenton, N. J.

Jan. 28-30 — N. Y. S. Horticultural Society, Armory, Kingston, N. Y.

Jan. 28-30 — Vermont Farm Show, Barre.

Jan. 30-31 — Annual meeting Mutual Federation of Independent Cooperatives, Hotel Syracuse, Syracuse, N. Y.

Jan. 30-31 — Annual New Hampshire Poultry Health Conference, Memorial Union Building, University of New Hampshire, Durham.

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HOLLAND — An overnight steamer takes us to this picturesque land where we visit The Hague, Holland's Capitol city, Amsterdam, and Spakenburg on the shores of the Zuider Zee to see the inhabitants dressed in their traditional attire.

DENMARK — Four days in this charming country, seeing "Wonderful, Wonderful Copenhagen," the famed Tivoli Gardens, royal palaces, Hans Christian Anderson country, Hamlet's castle, and other well known sights.

SWEDEN and NORWAY — By ferry to Sweden and an overnight visit in Halmstad on the shores of the Kattegat, and then on to Stockholm where we will spend two nights. We'll have plenty of time for shopping in Stockholm's gay, well stocked stores before we make our way westward through rural Sweden to Oslo in Norway.

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ED EASTMAN'S PAGE

HAPPY NEW YEAR

There's something about January and the New Year that helps us to forget the mistakes, failures and tragedies of the past and go forward with renewed determination and hope. May it be that way with you, so that the New Year will be the best ever for you and yours!

WHO ARE YOU?

Every good business man and farmer carefully sizes up his business, his assets and his liabilities at the beginning of a new year in order to know what his net worth is and to make plans for the coming year. I think it is even more necessary to do the same with our personal lives. So I frequently take a spiritual inventory, asking myself some of the following questions and trying to give an honest answer to them.

Using these questions as a guide, I suggest that *you* do the same:

Who am I? Am I a person proud of my heritage? Do I think only of myself? Do I try to know and to understand the world and the people around me? Am I stable, steadfast, and loyal in my thinking and my beliefs?

Why am I on earth anyway? Putting it another way, why did God put me on earth? Any one of a million things could have happened in my ancestry so that I would not be on earth at all. Therefore, there must be some good reason *why* I am here.

When I ask college students whom I am counseling why they are here on earth, I get some very interesting answers. Many of them have the right one, that is, that God permits us to be on earth to help others. If you don't believe that, then you really have no excuse for being here.

I like to think of all of us traveling together along the Great Road, and that we have no business on earth unless we pay for our passage.

Be honest with yourself now. Do you go rushing along the Road of Life heedless and indifferent to those traveling with you? Or do you do what you can to make the passage of others easier? Do you try to help those who need help? Being more specific, are you pleasant and cheerful? Do you give your fellow travelers something to smile about frequently? Do you give a word of praise or sympathy to help others over the rough spots? Are you kind, tolerant, and cooperative — or are you overbearing, opinionated, and argumentative?

Do you try to live and let live with your family and friends? Are you trying to make yourself a better person every day in order better to help those around you? Do you have goals and ideals that you keep bright and shining all the time? What are you doing every day to achieve those goals?

What better New Year's resolution can you make than to take a real personal spiritual inventory, and then resolve that you will strengthen the weak places and be a better person in order to justify your existence, increase your happiness and that of your family and friends who love you! Do you realize that you can best serve God by serving others?

MY EXTRAVAGANT UNCLE

The Eastern Milk Producers' News printed in a recent number a copy of a letter written by a man in Massachusetts to his Senator in Washington. I thought it was so good that I'm passing it along to you.

My dear Senator:

I hate to tell you my troubles, but I have tried everything else I know. I feel that only you can help me now.

I have a dependent relative staying with me who has very little fiscal responsibility. He is very good natured and means well, but he keeps buying presents for my wife and me and our two children. He charges these presents to my account. When he sees something that he thinks we need, he buys it for us.

Many of these things are not needed by us, and in very few cases are they exactly what we would have bought if we had bought things ourselves. Because he doesn't work for a living money doesn't mean too much to him, and he tends to buy the first thing he sees, and doesn't shop around like I would do if I were purchasing items. He is also quite generous to the poor and needy, and often gives to those he doesn't know who feed him a soft line.

I just received a bill for his last spending spree and it gives me a sick, hopeless feeling. I keep thinking how much better off I would be if I could just spend that money for the things I want, and could give to the people and charities I think are needy. Honestly, he does so much of my spending that I tend not to give money to charity any more!

He won't listen to me, but he will listen to you because he respects you. Please use your influence to cut the spending habits of my Uncle Sam. *Sincerely, Jack A. Wilson, Winchester, Mass.*

TO THEN AND BACK

Since E. R. Eastman's latest book, JOURNEY TO DAY BEFORE YESTERDAY, was published in November, sales have been going up by leaps and bounds. It is so attractive that about all that is necessary to get a person to buy a copy is just to get him to look at it.

With its nearly 300 pages, over 100 old-time pictures and drawings, and its album shape, JOURNEY TO DAY BEFORE YESTERDAY is one of the most attractive-looking books I have seen, and Prentice-Hall, one of the biggest book publishing companies in the world, ranks this as one of its three best books of the year.

If you want a return trip ticket back to America when life was simple; if you want to visit again the old-time barber shop, the blacksmith shop, the county fair, the local school and the rural church; if you want to ride again and hold hands with your best girl in a buggy; or if you want to take a ride in one of those newfangled gadgets called automobiles — if you would like to make a Christmas present of lasting value; and especially if you want to know and visit again with the plain, good folks and know how they lived long ago, then JOURNEY TO DAY BEFORE YESTERDAY is your answer.

Send your check or money order for one or more books at $5.95 each, postpaid, to *A*merican *A*griculturist, Department Book, Savings Bank Building, Ithaca, N. Y. — *M.E.R.*

IT'S A PERFECT FOOD

According to the Christian Science Monitor, the average height of 15-year-old boys in Japan has jumped 3 1/2 inches since World War II. Milk did it!

The Japanese have recently gone all out, much farther than we Americans have, to make milk available. In Japan, it can be had in railway stations, in offices, and the young people there are drinking it for refreshment instead of carbonated beverages. Consumption has risen 500 percent since World War II.

If we Americans would do the same in making milk available, and if dairymen would get back of it with much bigger advertising and publicity campaigns, they would greatly increase milk consumption and materially improve our health. What a wonderful thing it would be if there was a big pitcher of milk on every table at every meal, including, of course, every dairyman's table.

OH, MY ACHING BACK!

There is mounting evidence that a great deal of back troubles are avoidable. We must learn to use our backs properly. The most important thing is to learn that your back is not a level; your legs and arms are — **but not your back.** Low sinks, ovens, ironing boards, work benches, etc. promote back troubles. Mattresses that are too soft or have sagging springs will keep your back muscles awake all night trying to keep the back straight.

The seats of tractors and other farm machinery are often the cause of low back pain; so are truck and auto seats. Here are some ways to help avoid backaches:

1. **Learn to lift correctly.** Use your stronger leg muscles by placing your feet closer to the base of the object, bending your knees outward, and pushing up with your legs.
2. Avoid subjecting your back to any **sudden, erratic motion.**
3. Try to **improve your posture** in both sitting and walking.
4. **Sleep on a firm bed.** A bed board may be helpful.
5. **Get regular exercise** of a type that stimulates all your muscles rather than just a few.
6. If you have to sit for long periods, **get up and stretch** occasionally.
7. **Beware of excessive overweight.** Extra weight of fat accumulated on the abdomen pulls on the vertebrae at the small of the back, increasing the spine's normal curve and causing pain.
8. **Try never to become overfatigued** or exhausted, either mentally or physically. Emotional pressure—from work or personal problems—causes muscle tension.

WHY NOT?

Most of us are agreed that it is more difficult for a young couple to get started in farming now than it ever was, but it still can be done.

In my office the other day was a young lady student in the New York State College of Agriculture. She acquired a calf when she was a little girl, and now owns 30 head of purebred Jerseys. On top of that, she is getting a college education in the science of agriculture. So *she* has the problem of getting started in farming all solved.

Another partial solution to the problem is to rent cows. That's a new idea to most Northeast dairymen, but after all, why not? Isn't it just as practical as renting a farm or farm machinery? It would be a good investment for the owner of the cows, and would provide the $5,000 or more necessary to start with a good dairy.

If you have had experience in renting cows, it would be interesting to have some short letters telling me how you do it.

EASTMAN'S CHESTNUT

Little Betty was scolded because of her bad manners at the table. For punishment, she was placed at a little table in the corner of the room all by herself.

Imagine the astonishment of her parents when they heard Betty saying grace:

"Thank you, Lord, for preparing me a table in the presence of mine enemies."

AA SERVICE BUREAU

NO PRIZE

"Abaut two months ago I was notified that I had won a sewing machine, and that I cauld stap in the stare and pick it up. When my daughter and I stopped down a few days later, we faund that, in order to get the machine, I had to buy a cabinet for nat less than $39.95.

"Neither of us liked the machine I had won sa we laoked at ather models, but the prices were higher than I wanted to pay. However, by making aut a contract for $19.50, I could hold the deal and go hame and talk it aver with my husband. They assured me that, if I decided against it, my money would be refunded.

"The next day I wrate them that we had decided against the purchase and I requested my refund, but I haven't received it as yet."

A number of sewing machine concerns have used similar "consolation prize" or "merchandise credit check" tactics to bait customers to come in and buy higher priced machines. This method of selling is deceptive, since this is not truly a prize. The party concerned must spend money to take advantage of it.

In this case we may be able to get a refund, if the hold contract our subscriber signed was not an agreement to purchase.

USED CAR

"Recently I purchased a used car from an autharized dealer. The car has never been right since the day I baught it. I have had it back far service about seven or eight times, and now the dealer says he will not do anything more with it."

Unfortunately, there is little we can do concerning complaints about used cars or repair jobs on cars. This is a transaction between two individuals.

After a used car is purchased, any servicing or charge for servicing depends upon what was in writing, what the contract covered, and/or what sort of warranty the car had.

It is our understanding that the policy of this particular company on a used car warranty is 50/50 sharing of costs for 30 days.

When you are considering the purchase of a used car, it is worthwhile to have a mechanic you trust check it over for you and pay him for the job. It is too late after you have made the purchase.

TRUCK MILEAGE TAX

"As a farm owner and operator in northern Pennsylvania, abaut six miles from the New York State line, I wauld like some information about the truck mileage tax law.

"Does a farmer wha lives in Pennsylvania, who is trucking his own hay or cattle across the New Yark State line, have to pay this tax when he is trucking for his own personal use? If a farmer buys hay in New York State can he truck it ta Pennsylvania in his own truck without paying tax?

"Do you have, ar where can I obtain, a copy of the truck mileage law?"

A copy of Truck Mileage Tax Regulations 21 (1961) may be obtained by writing the Department of Taxation and Finance, Truck Mileage Tax Section, Albany 1, N.Y.

According to Section 221.5:

a. A motor vehicle which is both owned and operated by a farmer is exempt, provided it is used exclusively by him for any or all of the following purposes:

(1) to transport his own agricultural commodities, products, pulpwood or livestock;

(2) to transport the packed, processed or manufactured products which were grown or raised on his farm, lands or orchards;

(3) to transport supplies to his own farm or orchard for consumption and use thereon;

(4) to transport farm products from a farm continguous to his own.

b. Any use of a motor vehicle, owned and operated by a farmer, for any other purpose than those set forth above destroys its exemption completely, with the result that a permit and plate must be obtained for such vehicle and its entire mileage for the calendar month, including mileage both for exempt and nonexempt purposes, is taxable.

Therefore, to answer our reader from Pennsylvania, the transport of hay grown on his own farm is an exempt operation under the above subdivision 1. If the hay purchased in New York State is to be transported to his own farm for consumption or use thereon, it is also an exempt operation under subdivision 3. However, if this hay is intended for resale or any other purpose than that mentioned in the preceding sentence, then both the permit and tax requirements apply.

CAN YOU HELP?

Mrs. A. E. Martin, Route 1, Johnstown, N. Y., would like information on where to buy home knitting machines, both round and bar types.

* * *

Mrs. Louis Past, 211 Erie Street, Syracuse, N. Y., would like to locate this book, "Nat Foster—King of the Adirondacks Wild Frontier," by Rev. A. Bryon.

* * *

Do you recall the words to the song, "Let's Give the Birds a Ball"? If so, please send them to Mrs. Viola Prince, Greenport, L. I., N. Y.

* * *

Mrs. Tennie Toussaint, R. D. 3, St. Johnsbury, Vt. would like directions for making an old-fashioned fascinator, as worn by ladies in her grandmother's time. Square cut beads were incorporated into the stitches.

* * *

If you have old quilt pattern books or apron patterns that you would like to pass on, please send them to Mrs. Clinton O. Rising, R.F.D. 1, Box 132, Deerfield, Mass.

* * *

Mrs. E. Lincoln Sheldon, Box 52, Copenhagen, N. Y., would like to know where to get a shuttle for her Davis Sewing machine (dated Sept. 10, 1871—May 10, 1886).

* * *

Mr. Leo St. Pierre, R.F.D. 1, Wilton 2, N. H., would like the poem — "Take me back to the trails of the red Gods, where Dame Nature rules supreme. . ." He would also like old copies of "In the Maine Woods," printed by the Bangor & Aroostook R.R. in the early 1900's.

* * *

Mrs. Nelson Burgess, R.D. 2, Laceyville, Pa. would like to get copies of the St. Nichols magazine; only copies since 1920.

Mrs. Homer Jones, R.2, Cohocton, N. Y., would like a copy of the poem, "Driving Home the Cows," by Kate Osgood.

* * *

Nail Hits Eye



Mr. Charles Van Camp of Palmyra, N. Y. receives $1347.71 from local agent Claire Reynolds. Mr. Van Camp was driving a nail, gave it a glancing blow causing the nail to fly into the center of his right eye. Loss of eye and medical expense benefits were paid from two policies.

This is Mr. Van Camp's letter of thanks:
"It was certainly wonderful the amount of money I received from the two policies I had with the North American Accident Co. I'd advise this protection to anyone. It has low premiums and good benefits."

Charles Van Camp

OTHER BENEFITS PAID

Warren H. Willsey, East Berne, N.Y.$ 120.40
Cat scratched—injured arm
Francis J. Green, Freedom, N.Y. 204.06
Caught in roller chain—injured fingers
Titus Fuller, Sr., Nineveh, N.Y. 300.00
Fell from tractor—injured head
Laura A. Arnold, Farmersville, N.Y. 1270.00
Fell—fractured spine
Merrill Palmeter, Locke, N.Y. 656.06
Kicked by cow—injured knee
Earl D. Stilwell, Sinclairville, N.Y. 1626.81
Slipped on ice—fractured leg & ankle
Grace Warn, Horseheads, N.Y. 247.14
Hit by car—fractured elbow
William Hoag, Oxford, N.Y. 308.55
Truck accident—multiple cuts & bruises
Velma R. Buckley, Saranac, N.Y. 882.07
Fell off horse—badly injured hand
Rowland L. Goodale, Cortland, N.Y. 676.66
Auto accident—broke pelvis, injured back
George Raeder, Grand Gorge, N.Y. 792.89
Tractor tipped over, fractured ribs & cuts
Henry Marsh, North Collins, N.Y. 1378.40
Run over by wagon—badly broken leg
Percy C. Jameison, North Bangor, N.Y. 225.00
Thrown from wagon—injured shoulder
Charles Coniber, Pavilion, N.Y. 682.14
Tractor accident, fractured pelvis, bruises
James Clark, Newport, N.Y. 283.86
Kicked by cow—injured back
Donald N. Burgess, Carthage, N.Y. 341.66
Unplugging chopper—badly broke fingers
Elmer Petzoldt, Castorland, N.Y. 642.84
Crushed by bull—injured chest
Leon J. Patrick, Leicester, N.Y. 622.95
Hit knee on baler—severe injury
Graham Van Dusen, Canastota, N.Y. 782.86
Kicked by cow—severe knee injury
Ruth Miller, Fairport, N.Y. 252.85
Fell—broke arm
Raymond Sitterly, Amsterdam, N.Y. 673.50
Hoist slipped—fractured foot
Raymond Sitterly, Jr., Amsterdam, N.Y. 608.25
Dragged by bull—injured toes, ankle, bruises
Elwood LeRoy Langdon, Ransomville, N.Y. 249.36
Fell from tractor—fractured wrist
Arthur Brown, Cassville, N.Y. 882.30
Auto accident—whiplash & back injury
Emil Koller, Manlius, N.Y. 1860.00
Run over by tractor—broke clavicle, ribs, internal injury
Anna Nowack, Victor, N.Y. 492.35
Slipped & fell—fractured vertebra
Linus Hood, Medina, N.Y. 1184.98
Bumped head on machine—detached retina eye
Bertha Kells, Hannibal, N.Y. 760.00
Crushed by rolling bolder—badly broke foot & leg
Fred Prill, Cherry Valley, N.Y. 879.65
Riding on tractor, caught foot in PTO—cuts, crushed heel
Albert J. Kostic, Slate Hill, N.Y. 393.00
Crushed by cow—severe injury to hand
Luther Hargrave, Lisbon, N.Y. 735.33
Fell from wagon—injured back
Clinton S. Thompson, Gouverneur, N.Y. 1060.00
Saw flywheel broke—fractured skull, injured eye, teeth
George Sabata, Richmondville, N.Y. 321.21
Fell off moving chopper—fractured ankle
Joseph Kocourek, Cayuta, N.Y. 112.00
Jumped off dozer—injured foot & ankle
Neil Rodman, Interlaken, N.Y. 145.00
Auto accident—multiple bruises
Robert Perry, Arkport, N.Y. 1127.14
Thrown from pony cart—fractured skull, ribs, leg
John J. Swotkewicz, Jamesport, N.Y. 285.70
Fell from farm truck—injured teeth
Rosetta L. Tuthill, Mattituck, N.Y. 1280.00
Fell on stairs—fractured ankle
Vincent Bialeski, Cutchogue, N.Y. 478.86
Auto accident—injured arm
Mary Sattler, Fosterdale, N.Y. 111.70
Fell downstairs—injured head, shoulder & back
Harold Monell, Owego, N.Y. 707.01
Fell from hay mow—injured back
Donald J. Kane, Groton, N.Y. 892.40
Attacked by bull—fractured spine
Della Watt, Gardiner, N.Y. 206.68
Fell down stairs—fractured toe, injured foot
Samuel Hunt, Eagle Bridge, N.Y. 561.57
Slipped—bruised chest
James Sampson, Palmyra, N.Y. 285.77
Caught hand in pulley—injured hand
Teresa Neamon, Arcade, N.Y. 164.16
Slipped on ice—fractured arm
Kenneth Gibson, Dundee, N.Y. 1482.68
Truck accident—broke leg
Thomas J. Litzenhauer, Callicoon, N.Y. 191.42
Auto accident—fractured ribs, cuts & bruises
Otto Allen, Union City, Pa. 260.86
Thrown from farm truck—fractured wrist
Blair Boyce, Tioga, Pa. 1026.64
Burning garbage—caught on fire
Gertrude E. Irwin, Crooked Creek, Pa. 318.10
Fell on ice—fractured ankle
Ivan L. Kerr, Wellsboro, Pa. 925.07
Motorcycle accident—multiple bruises, concussion
Nellie Mae Dingfelder, Corry, Pa. 105.67
Kicked by cow—bruises
Reuben Dobbs, Marlton, N.J. 185.72
Fell on ice—twisted back
Edward Waln, Yardville, N.J. 342.86
Gored by bull—multiple bruises & cuts
Stella Haines, Mt. Holly, N.J. 1109.97
Fell—broke hip
Tessie Nooitgedagt, Belvidere, N.J. 108.99
Fell on ice—fractured left arm
Robert A. Gregory, Newton, N.J. 254.29
Kicked by cow—fractured hand

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
THE NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK

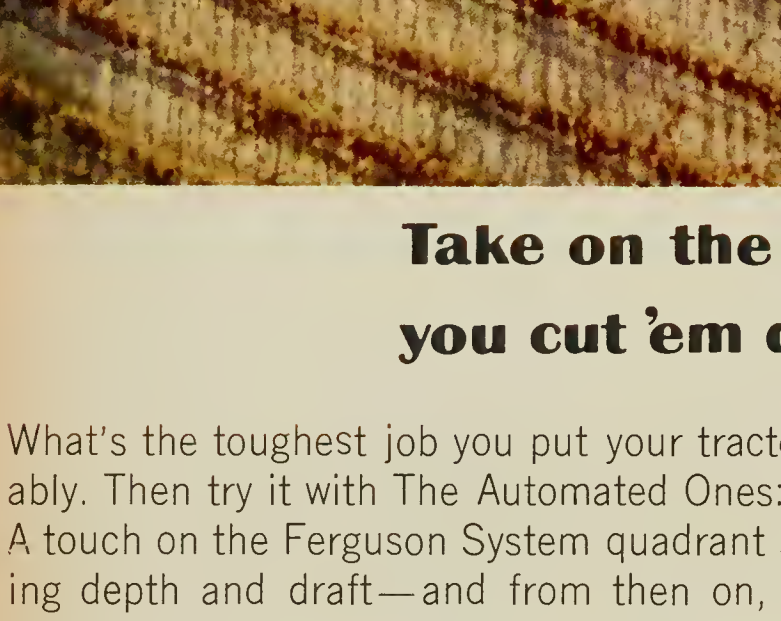
Take on the big jobs ... take on the tough jobs ... you cut 'em down to size with The Automated Ones.

What's the toughest job you put your tractor to? Plowing, probably. Then try it with The Automated Ones: the MF 35 and 65! A touch on the Ferguson System quadrant sets the plow's working depth and draft—and from then on, depth is maintained automatically through 3-point linkage. Weight is transferred automatically to the rear wheels, too, when extra traction is needed. Comes extra-heavy going, just flip the Multi-Power switch into LOW. Automatically you get extra pull-power, right on-the-go. Comes slick going and a wheel spins, the Differential Lock gets you right through. All this and more—like Power Steering, Variable Drive PTO, power-adjusted wheels—is available on all The Automated Ones, diesel or gas powered! And on the MF 65, you get the cushioned, shock absorbing Float-O-Matic Comfort Seat. Go automated this year with the MF 35 or 65! Or, for the lowest priced, fully equipped, 2-plow diesel you can buy, see the new MF 25, with Ferguson System, 2-stage clutching, Differential Lock, and more! Ask how you save with the low-cost MF Time Payment Plan. Massey-Ferguson Inc., Detroit, Michigan.

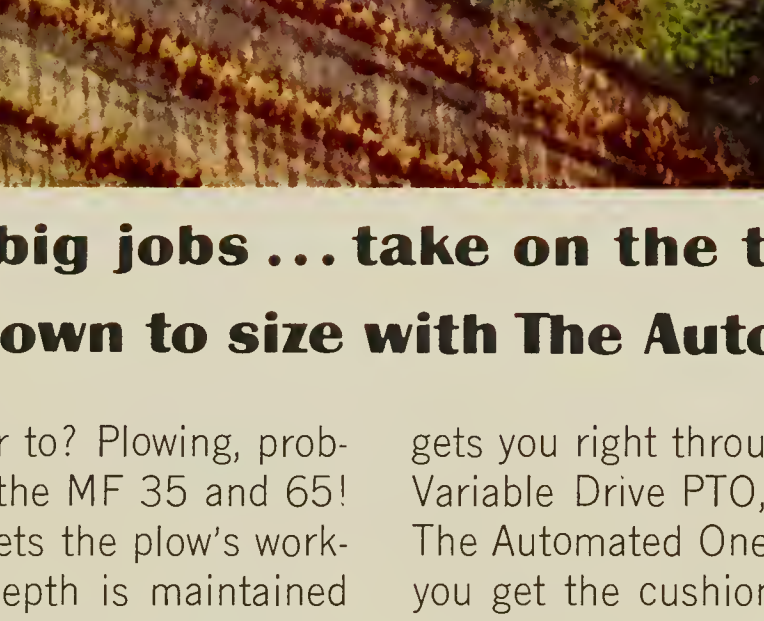
MASSEY-FERGUSON

World's largest manufacturer of tractors and combines

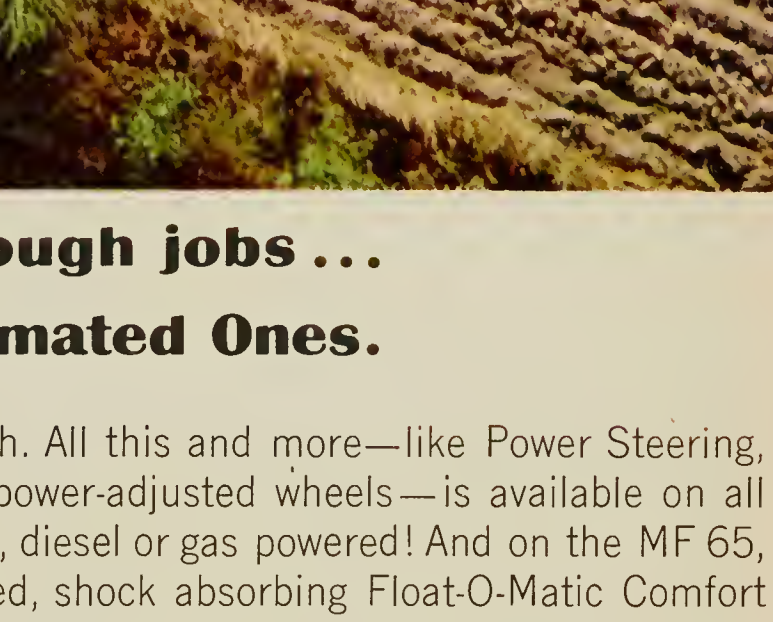
Low-cost 2-plow MF 25 Diesel



3-plow MF 35—world's best seller



4-plow Massey-Ferguson 65 Dieselmatic



FEBRUARY 1964

American Agriculturist

HE GROWS HIS OWN MILK

Central New York dairyman Ward O'Hara (above) field-shells his corn and stores high-moisture grain in a sealed silo. On page 16 he tells how he has mechanized both grain and forage handling.

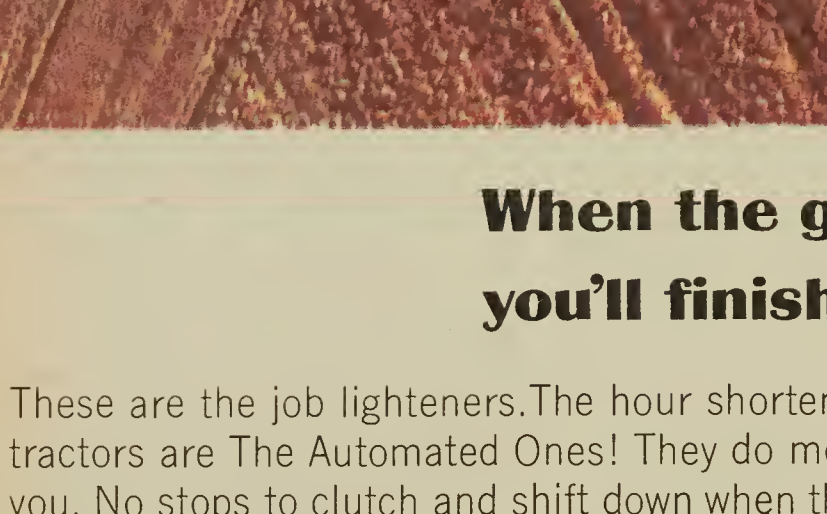
When the going's tough and the hours long... you'll finish fresher with The Automated Ones.

These are the job lighteners. The hour shorteners. Because these tractors are The Automated Ones! They do more of your work for you. No stops to clutch and shift down when the going gets tough. Right on-the-go, just flip the Multi-Power switch into LOW... and away you go. The Ferguson System gives you precise, finger-tip control of implements . . . and transfers weight automatically to the rear wheels when extra traction is needed. In slick going, Differential Lock provides positive drive to both wheels. All this and more—like Power Steering, Variable Drive PTO—is available on all The Automated Ones to bring you home fresher at day's end. And for comfort, you get the cushioned, shock-absorbing Float-O-Matic Seat on the MF 50, 65 and Super 90. All come with fuel-saving diesel power plants. Or with economical gas engines. See The Automated Ones: the 3-plow MF 35 or 50, 4-plow MF 65, or the big 5-plow Super 90. And save when you buy on the low-cost MF Time Payment Plan. Massey-Ferguson Inc., Detroit 32, Mich.

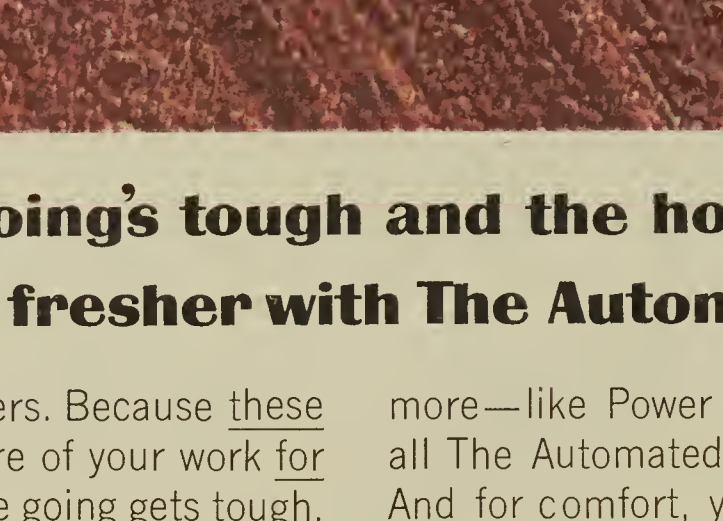
MASSEY-FERGUSON

World's largest manufacturer of tractors and combines

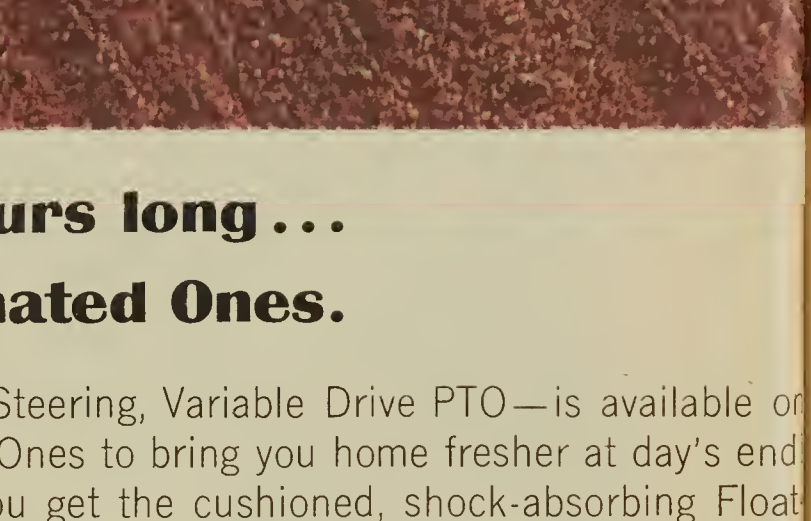
4-plow Massey-Ferguson 65 Dieselmatic



Shift on-the-go at the flip of a switch



Big 5-plow Massey-Ferguson Super 90 Dieselmatic





Save on financing! The MF Dealers listed below will show you how quick and easy it is—and how you save—with the Massey-Ferguson Low-Cost Time Payment Plan.

NEW YORK

AFTON, Bernett H. Oecker
ALBANY, Abele Tractor & Equip. Co., Inc.
AMSTERDAM, H & M Equip. Co., Inc.
ANTWERP, Northrop Equip. Co., Inc.
ATLANTA, Steuben Farm Supply, Inc.
AUBURN, Clark & Whaley
BALLSTON SPA, A. L. Pettit & Son Equip. Inc.
BATH, James H. Burns
BELLEVILLE, Bob Henry, Inc.
BERGEN, Kaiser-Wilcox Corp.
BLOSSVALE, Jay's Sales & Service
BOSTON, Emerling Chevrolet Co., Inc.
CANANOAIGUA, Oonald J. Howard
CANTON, Hundley Farm Imp., Inc.
CENTRAL BRIDGE, J & P Imp. Co.
CENTRAL SQUARE, Central Square Imp.
CHERRY CREEK, Cherry Creek Motor Sales
CHESTER, Chester B & J Garage
CLINTON, Marsh's Farm Equip.
DAVENPORT, MacCracken Farm Supply
DeRUYTER, H. W. Cook Farm Service, Inc.
EAST AURORA, Circle Mtrs. of E. Aurora, N.Y.
EAST SYRACUSE, Northeast Tractor Sales
EAST RANOOLPH, Ed Gumienik
ELBA, County Line Garage
ELLENBURG OEPOT, S. L. Drown & Sons, Inc.
ELMIRA, Pautz Equip. Co.
FILLMORE, Fillmore Mill
FORT EDWARO, Emerson C. Grant
FRANKLIN, Ray Tilley & Son
FRANKLINVILLE, C. A. Phillips & Sons Inc.
GOUVERNEUR, Jones Farm Supplies
GRANO GORGE, Sauveur Garage
HERKIMER, Palmer J. Watkins
HICKSVILLE, L. I., Wm. Kroemer & Sons, Inc.
HORNELL, Thacher Brothers
HUBBAROSVILLE, Jacob Misch & Son
ITHACA, Ithaca Farm Equip. Inc.
JEFFERSONVILLE, Jeffersonville Garage
KIRKVILLE, Mabie Bros. Inc.
KINDERHOOK, Kinderhook Farm Equip. Corp.
KING FERRY, Roy A. Tuttle
LaFARGEVILLE, Glenn Johndrow
MILLERTON, Scoland Farm Equip.
MARCELLUS, Nightingale Mills, Inc.
MARTINSBURG, Ingersoll's Farm Supply Co.
MIOOLEPORT, R. Max Hyde
MOIRA, Henry Eseltine M-F Sales
MONSEY, Monsey Tractor Co. Inc.
NAPLES, C. W. Guile
NELLISTON, Hawkins Tractor & Imp. Sales
NEW HAMPTON, Sosler Garage & Farm Imp.
NORTH JAVA, Java Farm Supply
NEW PALTZ, New Paltz Tractor & Equip.
NEWPORT, Waller Sales & Service
NORWICH, R. O. Smith and Sons
ONEIDA, Marshall & Houseman Inc.
OWEGO, J. O. Hunt & Son
PANAMA, Panama Farm Supply
PIFFARD, Parnell Sales & Service
POUGHKEEPSIE, Inland Trac.&Equip. Co. Inc.
RICHFIELD SPRINGS, Hillside Equip. Co.
RIVERHEAO, William Kroemer & Sons, Inc.
SCHAGHTICOKE, Riverside Tractor & Imp.
SHERIOAN, Main Motors
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American Agriculturist

FOR THE NORTHEAST FARMER

Volume 161 No. 2

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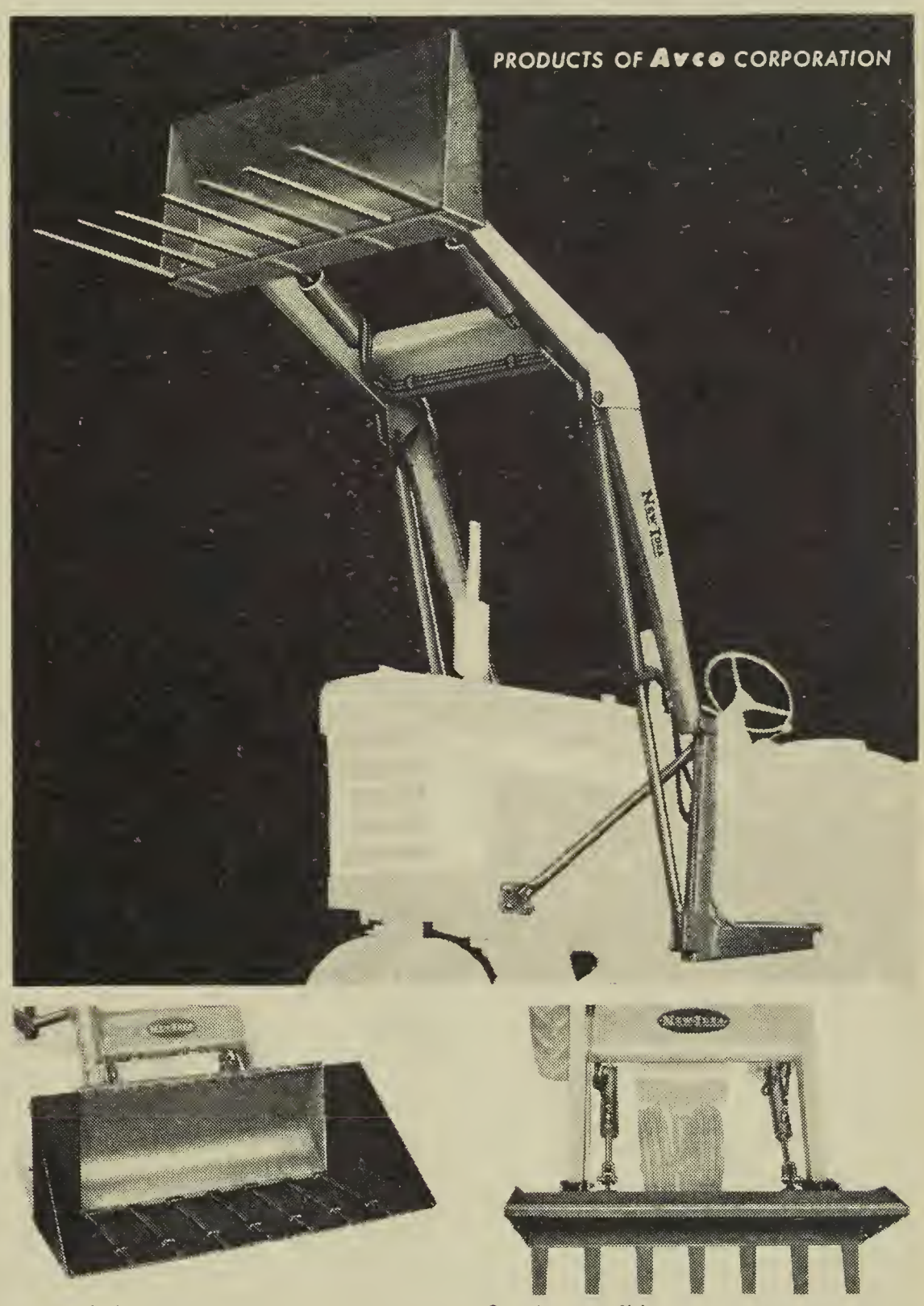
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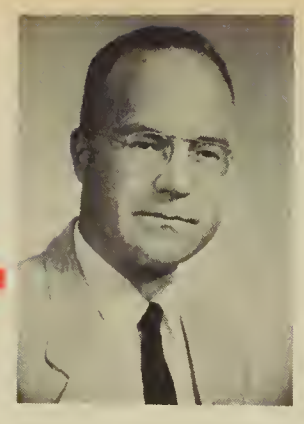
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TOWN_____ STATE_____

EDITORIALS

by GORDON CONKLIN



"THERE IS NO GOD"

The children of our land are forbidden the privilege of organized prayer in our public schools. Teachers must officially during working hours be agnostics — neutral toward religion. There are now legal steps being taken in an attempt to forbid the Armed Services to have chaplains, on the grounds that public funds pay their salaries and support religious facilities available to service men.

Next I suppose will come an attack on the constitutionality of the words "In God We Trust" that appear on our currency. Surely the oath of public office and the oath administered in our courtrooms, both involving a Bible, will also be included soon in the shooting gallery.

The vocal minority is not content with a system of voluntary participation in religious activities, but clamors for removal of all vestiges of religion from anything connected with government.

Compulsory religion is as distasteful to me as to anyone, and I am aware of the bloody chapters of history that testify to the desirability of the separation of church and state. But something will have gone out of the soul of our nation when our schools and public ceremonies no longer nudge our people and whisper, "There is more to man than flesh and blood — seek the spiritual dimensions within yourself and your fellowman. There is more to space than emptiness — force back the narrow horizons of your mind and try to comprehend the moral order of the universe. There is more to life than death and taxes — religious convictions are the foundation for living abundantly and dying unafraid."

I think our Supreme Court Justices were wrong when they forbade voluntary prayer in our public schools. Now that the heat of argument has cooled and you have had a chance to take a longer look, what is your opinion?

A LITTLE ADULTERY

It's always troubled me that the laws regulating the milk industry in some of our northeastern States have seemed unrealistic about additives. New York won't even allow "subtractives" — the standardization of milk by removing butterfat from it.

Although dairy scientists have developed several additives that will improve the characteristics of dairy products, handlers are prohibited from using them. For instance, a compound exists that will add considerable time to how long whipping cream will keep. But because it can't legally be used in northeastern dairy products, longer-keeping vegetable "whips" (in which additives are legal) moved in and took over the market for that fluff on top of hot chocolate, strawberry shortcake, etc.

Maybe we shouldn't think of milk as being "adulterated" by anything added, but rather consider milk as being another raw material to be modified to suit consumers' tastes and the economic facts of life — just so long as it remains on the plus side nutritionally.

I couldn't help thinking of the milk additive situation as contrasted to a triumph within the last few years in the Empire State potato industry. A processor in the State had already told growers that he couldn't use their potatoes because they darkened when cooked for French fries. He had decided to buy potatoes from the West where soils and climate can produce varieties without this tendency.

Professor Ora Smith of the College of Agriculture at Cornell remembered reading a research report from Denmark on this subject and before you could say "white potato" the processor was adding sodium acid pyrophosphate to the spud bleaching process and going back to the growers to say he wanted their potatoes after all. This chemical is simple to use, inexpensive, effective, and has no detrimental effect on wholesomeness or nutrition — in fact, most processors now use it whether or not they have problems with darkening.

Such new techniques have been partially responsible for a steady increase over the past few years in the per person consumption of processed potatoes — a trend good for all potato growers. I'll bet there are similar possibilities for the dairy industry to make milk even more attractive to consumers — if milk were removed from the pedestal.

SOYBEANS FOR THE NORTHEAST?

By whatever indicator you choose, soybeans are the hottest crop around — the "go" light is on across the board. Domestic use of soybean oil is forecast to hit a record high in '64, and domestic use of soybean meal is predicted to be 4 percent above a year ago.

Both Europe and Japan are buying heavily; soybean oil exports from the United States are expected to hit a high of 1.4 billion pounds (also a record) this year. Soybean meal exports are predicted to increase by 100,000 tons over last year. Even if we ignore predictions concerning future domestic and foreign demand and look only at the records of past years, the trend is unmistakable — a booming demand that already exists for soybeans — and one that shows every indication of growing.

And, amidst talk of agricultural surpluses, the record high soybean crop of 742 million bushels last year is selling for good prices. In spite of rapidly expanding production, soybean prices are forecast to average $2.60 per bushel in 1963-64, compared to $2.34 in 1962-63. Prices to soybean growers in October 1963 averaged $2.56 per bushel, 33 cents *above* the price a year previous, and well above the 1963 government support price of $2.25 — all this in spite of a 19 million bushel jump in soybean supply between 1962 and 1963! Is there any other agricultural commodity in the land that can make that statement?

There are some other straws in the wind that seem pertinent. In these United States, the percentage of calories in the national diet coming from starches and sugars has decreased from 57 percent in 1910 to 47 percent in 1962. The percentage of calories from fats (such as soybean oil) increased from 32 percent in 1910 to 41 percent in 1962. Calories from protein (soybeans are a good source) remained about the same over that period — between 11 and 12 percent.

The proportion of fat consumed in the form of oil and salad dressing (that soybean again) jumped sevenfold between 1910 and 1962 — from 1.5 percent to 10 percent. The current controversy as to whether animal fats or vegetable fats are "better" for the old ticker may steal quietly into the night someday, but for the immediate future the vegetarians seem to have a better "image" in the public eye.

All this leads me to ask — what about developing a soybean industry in the Northeast? Agronomists tell me we can grow soybeans, but yields aren't up to par. Maybe research workers in our colleges of agriculture could come up with answers that would let northeastern farmers in on the bonanza and hedge their bets already made on butterfat.

Maybe now we should study the feasibility of growing soybeans.

TAXABLE PROPERTY AWOL

Although a veteran myself, it gets my goat to see how legislators pass one bill after another to give ex-servicemen another cut of melon. The billions of dollars paid out for special privileges would make your head swim at the national level, but let's just concentrate on one part of this game that has a long history in New York State.

Tax exemption of property purchased with certain moneys received for military service has been granted by the State since the preceding century. In 1900, the assessed value of what is usually referred to as "pension exempt property" was $2 million. In 1945, at the end of World War II, the figure stood at $66.8 million; by 1962, it was $634 million. Between 1945 and 1962, there was an 850 percent increase in assessed valuation of pension exempt property in New York State.

Because a man served his country in the armed forces, is he entitled to ask his neighbors to shoulder part of his tax load? Is it really in the best interests of the residents of New York State to have this $634 million of assessed value exempt from real estate taxes?

THEY DID IT

New Jersey farmers, although a very small minority in the Garden State, have proved that determination and organization can move mountains. They set to work — with the help of many nonfarm people like American Cyanamid president Kenneth Klipstein — and won approval by the voters of a constitutional amendment. The amendment clears the way for legislation to require that farm land be assessed on the basis of present use rather than as potential industrial sites and housing developments.

New Jersey, with the highest real estate tax rates of any state in the nation, has not solved its tax problems, but at least the way has been opened for taking some of the pressure off farm real estate. This move may well force quicker action on a broadening of the tax base; the New Jersey Farm Bureau is on record as favoring a 3 percent sales tax.

Here's proof of what can be done by farmers and "agribusiness" to inform the general public. Let's do more of it!

PODUNK, U.S.A.

Ever heard of Podunk? Sure, you have — it's the name of a place that is often used as a symbol of a rural area, just as "John Doe" symbolizes a typical American. Most folks think that Podunk is a purely fictitious name dreamed up by someone's imagination, similar to Kilroy of World War II fame.

Not so! I live not far from Podunk in Tompkins County, New York. It's not really a village — just a half dozen houses at a crossroads, but the sign at the crossroads leaves no doubt as to the locality's name.

Does anyone know of a settlement or village by this name anywhere else in the world?



"Did ya hear? He's buying it. Just the one I hoped we'd get."



"You should see my Mom drive one of these"

We know lots of farm wives and daughters who are pitching in nowadays when extra help is needed. Keeping pretty and feminine, too. And what a wonderful reward, in family closeness, with everyone pitching in. Real farm people wouldn't have it any other way.

Now, the tractor people at Allis-Chalmers didn't put all that ease and comfort in the Big Orange D-15 just for the ladies. It's a real man's tractor—full 3-plow, 4-plow in more places than we can count. Still, a woman or a boy can handle it when the time comes. Yes, and get more done than a strong man could a few years back. Allis-Chalmers tractor people are farm-bred. They know how scarce help is. They know the importance of things like this. And they're doing something about it.



"My Uncle has two D-17's"

When farming runs in the family, a boy can learn a lot. Like from a smart uncle who knows that if you want to make a profit out of today's bigger acreages, you've got to "power up." Who knows the true soundness of plowing back some of that profit into more efficient equipment. And, an uncle who is enough of a businessman to make profitable use of modern credit sources.

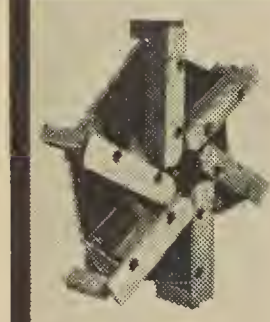
To farm people with this point of view, the Big Orange D-17 could be the just-right answer. Allis-Chalmers tractor people hoped it would be when they designed it to be a profit-earner in the 4-plow class. A right-sized step in the move to "power up." Allis-Chalmers dealer people tell us the D-17 has been a top-seller from the start. Only thing better'n a winner is *two* of 'em.

ALLIS-CHALMERS • THE TRACTOR PEOPLE • MILWAUKEE 1, WISCONSIN

HERE'S WHY

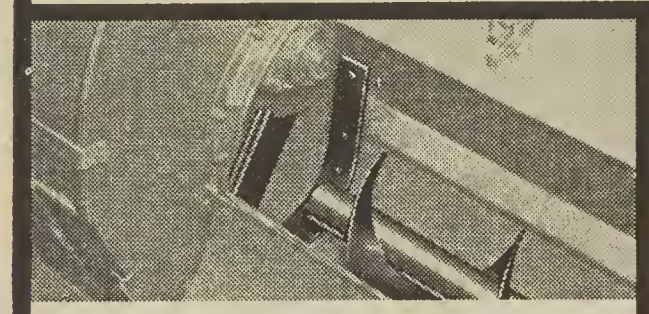
the GEHL 72

is the best flail chopper you can buy

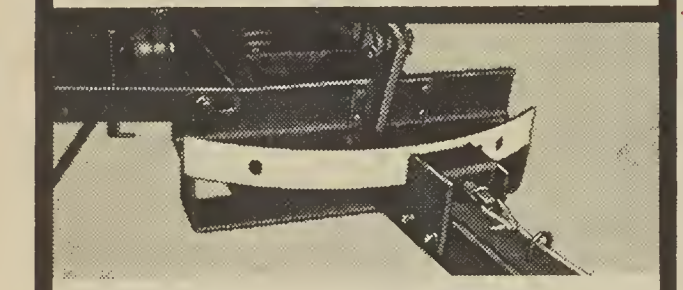


UNITIZED FAN BLADES AND KNIVES. Exclusive cut-and-throw action. Chops then blows crop to farthest corner of wagon with single quick-time coordination. No fan threshing or milling around. Three knives are standard, or use 2 or 6 as desired.

REVERSIBLE FLAILS, FULL 6-FOOT CUT. 39 razor-edged, reversible, interchangeable flails shred 2 full rows of stalks at a time. Flails are double-edged for double chopping life. Mounted in gangs that can be quickly switched.



POWERED DOUBLE CHOPPING. Cut the crop as fast and short as you want it. Low-mounted auger feeds the flail-cut forage steadily to the unitized knives cutting against an adjustable shear bar.



NEW SPRING-LOADED DRAWBAR. Adjust drawbar to four positions right from tractor seat. Easily change pulling angles to fit spacing between any row crop; or, set drawbar in transport position.

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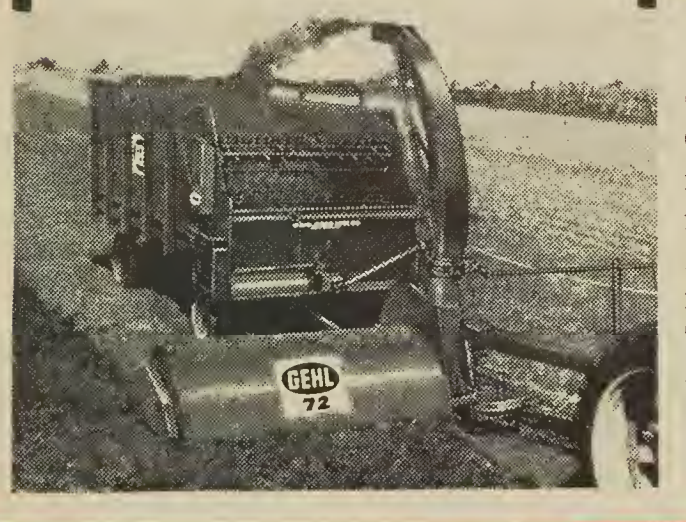
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Please send me information on the Gehl 72 Chopper. ☐ I am a student.

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GREEN CHOP with a Gehl 72 and bring lush forage to your cattle. Good forage won't be trampled in the field . . . you'll get more useable feed per acre. The "72" sweeps the field clean, saves you both time and money.

Make us Prove it with a Demonstration!

FARM DOLLAR GUIDE

A. J. Pollard, Associate Administrator of the New York-New Jersey Milk Order, estimates that MILK PRICES TO PRODUCERS during the first six months of '64 will average 16 cents per cwt. ahead of the same period last year. January-June production is expected to average 3% less.

SIGNUP PERIOD for 1964 government feed grain program is February 10 to March 27. Basically, it is the same program as in '63, but there are two modifications: the maximum feed grain acreage which may be diverted has been raised to 50% (from 40%) of the base; also, the average payment per acre for diverting 40% or more will be substantially higher than in 1963.

Next fall every farmer will get by mail a FARM CENSUS FORM to be filled out. Later, a census taker will call to check your answers. Point is that farm census will be only as accurate as answers YOU and other farmers give. One more reason for keeping accurate records!

"SHOTGUN MIXTURES" of many grasses and legumes are NOT recommended for seeding meadows. A simple mixture of one adapted grass and one or two adapted legumes will give much better results.

DAIRYMEN TEND TO UNDERFEED HIGH-PRODUCING COWS. Good plan is to increase grain to each cow as long as increased milk pays for extra grain. Also, many cows are underfed in early part of lactation, overfed later. Good feeding management can increase net profits.

There's some indication that President Johnson wants legislation for NEW GOVERNMENT WHEAT PROGRAM, perhaps because it is an election year. Rumor says it will be a voluntary two-price plan, with $2.00 supports for wheat used in U.S.; world price for the balance, PLUS government payments to growers who sow less than their acreage quota. Senator Humphrey of Minnesota has introduced bill which includes direct payments to wheat growers.

The only apple varieties with increased production in New York in '63 over '62 were McIntosh and Rome, up 7% each; biggest drop was Baldwin with 33%. Total New York '63 production down 6%; U.S. Production down 2%.

The Song of the Lazy Farmer



MY NEIGHBOR'S all upset these days about the wages that he pays for hired help around his farm, he says it's cause for real alarm. The trouble is, poor neighbor moans, our boys don't want to stay at home; they go to town for higher pay where they can loaf on Saturday, and that means help is hard to git and we pay through the nose for it. My worried friend can't understand why some boys do not love the land enough to work and sweat all day for just what he decides to pay; I fear young folks today, says he, are lazier than we used to be.

Of course, he's wrong as he can be, they're just too smart for him, by gee; it's the example neighbor sets that makes help hard for him to get, he labors fourteen hours a day and says all men should work that way. He's always up before the sun and thinks it's sinful to have fun; he pays a great big income tax but does not know how to relax. I don't have trouble getting men, I'll bet I could find eight or ten; I let 'em regulate their day and pay enough so they will stay. The only rule I've got, you see, is that they get no help from me.

New York CHECKERBOARD NEWS©

...From the Purina Service Centers serving New York farmers



Ever considered a new laying house for MORE CASH INCOME FROM YOUR FARM?

Ever consider adding some extra income to your total operation with an efficient, up-to-date laying unit? In many areas of the Northeast, there are many good profit opportunities for the efficient egg producer. But notice the emphasis on EFFICIENCY.

If you're interested in this opportunity, the man to see is your Purina Dealer or Serviceman. He has "package" plans tailored to fit your particular area—and need. Included in these plans is the very latest data on such things as:

CONTROLLED ENVIRONMENT . . . how to provide it at lowest practical cost.

HIGH BIRD DENSITY . . . suggested number of birds per square foot under varying conditions.



LABOR EFFICIENCY . . . arrangements and equipment that save time.

BUILDING ECONOMY . . . how to provide good housing at the lowest practical cost per bird.

LIGHT CONTROL . . . value to the egg producer and how to provide it.

Why don't you call your Purina Serviceman? Check out the plans. You'll be surprised at the many opportunities for the efficient egg producer!



RAISE BIGGER, BETTER CALVES...the Purina Way

Out of 2200 calves born—all raised on Purina Calf Starting Programs at the Purina Research Farm—*less than 1%* failed to grow to maturity.

FOUR-MONTH-OLD CALVES raised on Purina Nursing Chow and Purina Calf Startena are far bigger, growthier than average. The Purina Farm average of 320 lbs. for Holsteins is 48 lbs. heavier than normal breed average at that age. At 225 lbs., Guernsey calves 4 months old are 8 lbs. heavier than normal breed average.

TWO CALVES BREAK PURINA FARM RECORDS! Recently a Purina Farm Holstein calf weighed 409 lbs. at 4 months—137 lbs. heavier than normal breed average. And a 4-month-old Guernsey weighed 322 lbs.—105 lbs. above normal breed average at 4 months!

These records show that continuous Purina Research constantly improves Purina's Calf Feeding Program. SEE FOR YOURSELF how easy and economical it is to raise fine calves with Purina Nursing Chow. Next time you're raising a calf, order Purina Nursing Chow at your Purina Service Center.

Low-cost protection now may insure high egg production later!

Purina Pura-Mycin helps protect your layers against dreaded CRD, blue comb and synovitis . . . diseases that can spell trouble for your egg production and profits. Easy to use! Just add Pura-Mycin to drinking water. It mixes easily and completely, holds its germ-killing power for several days, doesn't upset drinking habits.

Economical, too! Costs only about 18¢ to medicate a gallon of drinking water with Pura-Mycin.

Ask your nearest Purina Dealer for this Terramycin* base Health Aid. Call or drop in today!

Protect your layers by investing in Purina Pura-Mycin now. The added health protection could pay for itself many times over in continuous egg production all winter.

*Reg. Trademark—Chas. Pfizer & Co., Inc.



LOW COST PRODUCTION...the reason why more farmers feed PURINA®

PERSONAL FARM EXPERIENCE

BEAN GROWER

We grew 500 acres of snap beans in 1963. We start out with soil tests on every field for nitrogen, phosphorus, and potash levels, as well as for minor elements, then tailor the fertilizer to the needs of the crop and the availability of soil nutrients. A typical fertilizer for snap beans on hill land is 8-24-8; down in the valley we often use a 4-12-8 because of differences in phosphorus availability. Our fertilizer is custom-blended to whatever analysis we want.



EARL CLARK

We plan to fit our bean fields very well and don't use any minimum tillage for that crop. We use quite a range of varieties — especially like Corneli 14, Harvester, and Kinghorn Wax. One of the things that we watch carefully is the handling of seed because germination is cut so much by careless bruising.

We normally start planting beans the first week in May and plant practically every day the weather cooperates from then on until the middle of July. Picking goes from the latter part of July right up to frost. We have two mechanical bean pickers, but also pick quite a few with our labor crew; we had about one hundred people in our labor camp last year.

We haven't had to spray beans for insects up to now, and the only real disease problem we have had has been with white mold that comes in wet weather. A serious problem has been wind scar; it was particularly bad in 1963. It seems to be worse as we move toward bigger fields with fewer hedgerows to block the wind. Processors object to beans marked in this way.

After the crop is off, we like to go in with a cover crop — usually rye grass. Sometimes this is drilled on, sometimes broadcast. — **Earl Clark, North Norwich, New York**

ROUGHAGE PROGRAM

Our soils are acid; many of the fields require 8 tons of lime per acre to bring pH up to grow legumes well. We've been using 40 to 50 tons of lime a year for some time, but still have a long way to go.

Corn does well and we use lots of it for silage. I like to have it get mature enough so the grain rattles a bit going up the blower pipe.

We use the silos for a variety of crops; in 1963 we began the season by ensiling rye. Most years, though, we use oats for silage, cut when they're just past the milk stage. Since it takes about a week to put oats in the silo, some of the grain is even past the dough stage by the time it is cut, but our Holstein cows seem to milk well on it.

We feed grain twice a day the year around; the top amount of grain per cow we've ever fed has been 16-18 pounds per day. Silage is fed all summer too, except for a period from about the middle of May to the first of July when pastures provide the roughage.

For bedding, we use wood shavings hauled from a mill about 40 miles away. One haymow is used for storage and the winter's supply hauled in on our own truck during July and August. We have a false endgate on the truck and use a silage blower to put shavings in storage. In addition, we also bed with hay that has been spoiled by weather. — **Ralph Runnalls, Middletown, N. Y.**

DAIRY IDEAS

Our power elevator saves a lot of time and a lot of backaches. We have used it two years, both for chopped hay and corn silage. The elevator goes to the peak of the barn with a conveyor the full length. It is arranged so chopped hay can be dumped along the two mows, one on each side of the barn floor. Then in the fall the same conveyor delivers chopped corn to two silos, one at each end of the barn.

Every dairyman feels the squeeze of higher production costs. I have a full-time man, Francis Eaton, who has been with me for eleven years. One of us runs the field chopper and the other the elevator.

COWS IN BARN

On the second of July last year we began keeping our 85 cows in the barn all day and turned them out only at night on our 45 acres of pasture. This way, there was no



DOUBLE-ACTION PEN-FZ!



problem with hot weather or with flies chasing them and, besides, we had been cleaning the barn every day anyway even when we were letting them out during the day.

All the barn windows were removed for better ventilation and we sprayed the stable twice a week for fly control. We fed grass silage while they were in the barn days until second cutting was ready; then we switched to greenchop and some hay. We never saw our cows so contented; they have milked the best they ever have and our spring freshening cows have never hung on in production as well.

For the past 15 years we have turned the herd out only rarely during the winter. Our stable has tie stalls; cows can move around enough to show heat periods. We keep careful records and watch carefully, have had no problem with breeding. Late July and early August are our heaviest freshening periods, but we try to have at least 5 or 6 cows freshen every month. — **Howard Merrill, Walton, New York**

DAIRY COMMENTS

Our farm has 60 purebred Holstein milkers, and we figure it is about a three-man business.

One of the troubles we have had recently is from acetonemia. If anybody knows how to control it, I'd certainly like to hear from them.



Silvio Rotti of Pittsfield, Mass.

We raise all our own stock. I sometines wonder if it is the economical thing to do, but you certainly buy a lot of trouble when you buy producing cows.

One change I have made recently is to give more feed to cows, especially when they are dry. We stop milking two months before they are due to freshen, and we never give a dry cow less than 10 pounds a day. — **Silvio Rotti, Pittsfield, Mass.**

FORAGE PROGRAM

I'll predict northeastern dairymen will be especially concerned about crops that will stand dry weather, particularly after last fall's drought. My experience has been that alfalfa continues to do pretty well even in dry periods, and in all the years I have been on this farm I have never lost a corn crop because of dry weather.



CLAIR BENNET

We get a jump on the haying season by putting in direct-cut grass silage early in June when it's usually hard to get haying underway because of catchy weather. In 1963, we put 15 acres in this way; it was a mixture of about 1/3 grass (timothy or brome) and 2/3 alfalfa. This silage is fed beginning sometime in the first two weeks of July all the way up through corn silage time in the fall.

We put in 45 acres of corn last year; all of it went into the silos — a 14' x 50', a 14' x 30' and a trench silo that holds 200 to 300 tons. We always feed out the trench silo first, using a front end loader on the tractor to move silage to the barn.

We grow corn with several different maturity dates, ranging in growing time from about 90 to 105 days. Some years, the real early corn is hard enough to pick for grain — not in 1963, though!

Our 73 milkers get a total of about 45 pounds of corn silage every day during the winter, fed twice a day during milking. We like to have corn grain at least in the glaze stage before ensiling.

We have a silo unloader in the big silo, but empty the smaller tub by hand. Equipment has taken a lot of the backache out of farming — for instance, our two self-unloading wagons, the bale thrower and random dropping of bales in the mow, and the transfer station that moves milk from the stable to the bulk tank.

We also have a gutter cleaner and use a front-end loader on the tractor to handle manure in the loose housing setup for heifers. Some feed comes in bags, but we also use a bulk bin into which feed can be blown. All this equipment makes it possible for myself and one full-time hired man to handle the work with only a small amount of day help during the summer harvest season — **Clair Bennett, Hornell, New York**

from the HESS & CLARK animal health center

Effective way to prevent "freshening flare-ups"



SPECIAL BARGAIN

Stock up on Pen-FZ this month and save. Look for this specially banded "2 free with 10" package. You get 12 tubes or syringes, but pay for only 10.

Double-action Pen-FZ, used during the dry period, is an effective way to help prevent recurrence of mastitis infection in cows with a history of the disease. Pen-FZ kills and destroys mastitis germs . . . helps knock out even stubborn cases. Also, there is no loss of marketable milk when Pen-FZ is used during the dry period.

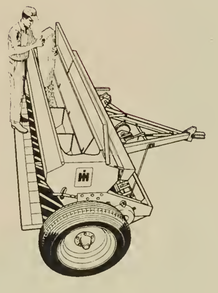
Double-action Pen-FZ is a potent combination of nitrofurazone, a germ starving nitrofuran, plus penicillin. So help prevent "freshening flare-ups". During their dry period, treat all cows that have a history of mastitis with Pen-FZ, the medication that has "double-action" against mastitis. Follow these easy directions:

Inject the contents of one Pen-FZ tube or syringe into each infected quarter and massage well up into the udder. Do not milk out treated quarters until the cow freshens.

And remember, Pen-FZ is an effective treatment for mastitis cases that arise during the lactation period. Buy Pen-FZ from your local Animal Health dealer.

Milk taken from treated animals within 96 hours after the latest treatment must not be used for food.

Pen-FZ . . . *with a germ-killing nitrofuran* HESS & CLARK
ASHLAND, OHIO / Division of Richardson-Merrell Inc.
P-4-3R



New! Fertilize heavy with hopper capacity no other drill can match

If you fertilize heavy, you'll seed crops faster, with fewer stops for fertilizer refills, with the new International Harvester No. 10 combination hopper grain drill.

Giant fertilizer hoppers hold 85 pounds per foot—more than any other drill made. Let you apply from 78 to 800 pounds per acre.

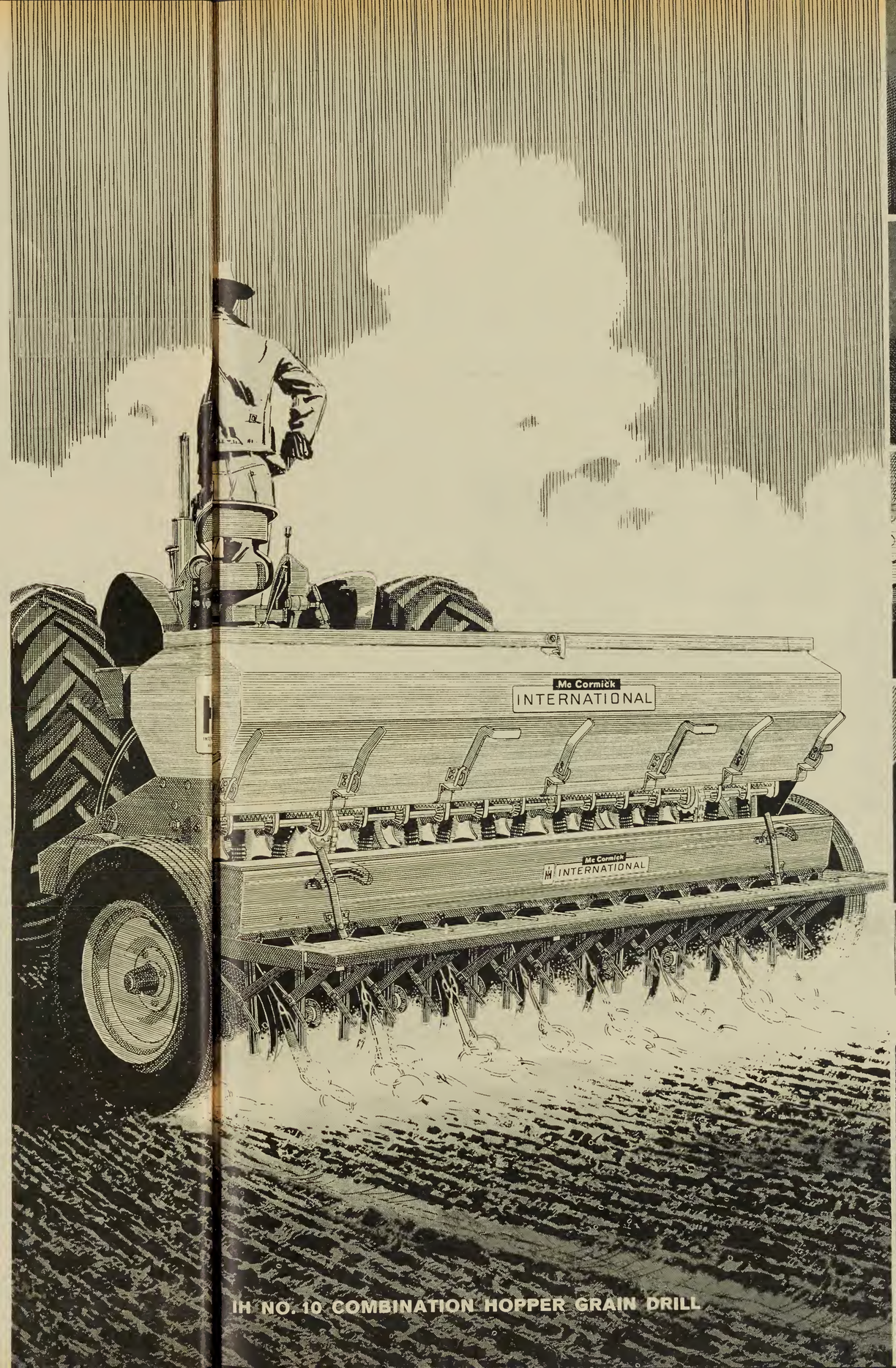
The IH No. 10-combination gives you plenty of seed capacity, too—big seed hoppers hold 1¼ bushels per foot. And it seeds and fertilizes with the top accuracy you need for uniform, high-profit stands.

Check the money-making, time-saving features of this drill. Features like precision-made, fluted feed cup...front seed delivery...exclusive triple-sealed disc openers...choice of 14″, 15″, or 20″ drive wheels...constant height lift, that raises gangs to same transport clearance regardless of working depth. And many more.

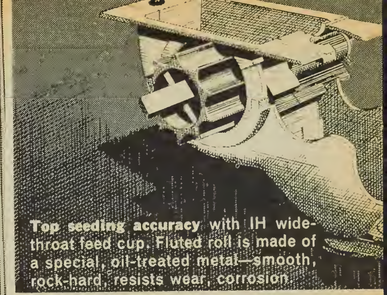
This new drill is built to last, too. It's warranted for one full year, or 1500 hours, against defects in material or workmanship.

See it at your IH dealer. When you do, be sure to ask about convenient "pay-as-you-grow" financing.

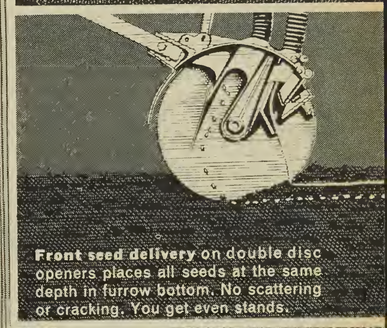
The people who bring you the machines that work



IH NO. 10 COMBINATION HOPPER GRAIN DRILL



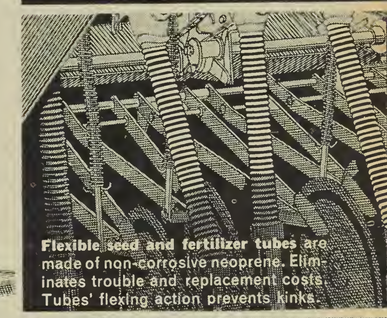
Top seeding accuracy with IH wide-throat feed cup. Fluted roll is made of a special, oil-treated metal—smooth, rock-hard, resists wear, corrosion.



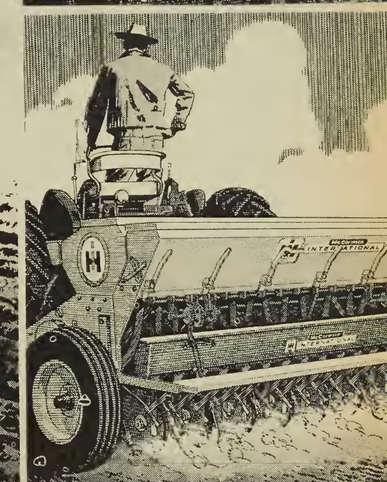
Front seed delivery on double disc openers places all seeds at the same depth in furrow bottom. No scattering or cracking. You get even stands.



Fast, easy cleaning. Just drop bottom of fertilizer hopper, lift out star feed wheels, and brush clean. You can do it in minutes. Helps stop corrosion.



Flexible seed and fertilizer tubes are made of non-corrosive neoprene. Eliminates trouble and replacement costs. Tubes' flexing action prevents kinks.



For average fertilizing see the IH No. 10 grain drill with separate hoppers. Seed hopper holds a whopping 1¼ bushels per foot . . . fertilizer capacity is a big 53 pounds per foot of hopper.



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DAIRY PROBLEMS UNSOLVED!

by Amos Kirby
New Jersey Editor

The biggest problem facing farmers in New Jersey centers around the dairy industry. The year of 1964 opened with more unsolved questions than have been answered through all the conferences, hearings, and reports that accumulated in 1963.

The Case and Company report solved no problems; Secretary of Agriculture Alampi has devoted more time and effort to developing a stable dairy industry than to any other official matter. The hearings held by Floyd Hoffman, Director of the Office of Milk Industry, have been ignored by the courts; now the dealers are quarreling among themselves!

The stability of the dairy industry in New Jersey depends on two basic things: (1) the kind of legislation approved by the Senate and Assembly; (2) the halting of the cold war and the in-fighting among retail dealers in various classifications.

The thinking among those not actually involved calls for the enactment of strong legislation; the Legislature had about 60 days from the first of the year in which to act and develop a program that will halt the quarreling and develop some sanity among those who believe their very existence depends upon buying milk at prices below the cost of production.

A Suggestion

After discussing the milk question with various leaders in the industry, the writer suggests this course of action:

(1) Give the present Office of Milk Industry sufficient powers to bring stability to the markets — or establish a new agency.

(2) Provide the OMI with sufficient funds to see that the industry complies with the rules of the game.

Discouraging Situation

A discouraging situation confronts milk-enforcing agencies. The courts have been notorious in overruling most penalties imposed for violations fo OMI regulations. It has become a common practice for violators to appeal fines, and carry them to a higher court where the record indicates that they are either unfriendly to the decisions or that there is something wrong with the entire setup.

Cooperation Needed

The immediate threat to a stable market appears to be a lack of cooperation in more than one segment of the industry. New Jersey producers must have a 40 percent per hundredweight premium over competing areas to cover higher operating costs and taxes, and this price differential lies at the source of many of the market problems.

PROCESSING CROPS

Growers of processing crops will soon be conferring with canners and freezers on contract prices for the year. Indications are that there is not the burdensome supply hanging over the markets that existed a year ago. The acreage of tomatoes, beans and asparagus was reduced in 1963, and the consequent reduction in tonnage has helped to put the market in a much better bargaining position. The New Jersey Agricultural Marketing Association has been working toward stabilizing markets through more uniform prices and a sensible planting program.

HERE AND THERE

The year promises to be an interesting one for farm organizations. At a recent meeting in Des Moines, Iowa, the president of the Dairy Farmers Guild told the National Farmers Organization that they were throwing their Association with the NFO; in turn, the president of the National Farmers Organization announced intention to bring their organization into New Jersey and New York.

PURELY PERSONAL

Robert W. Thompson, Columbus, formerly production manager of the 1,000-acre Thompson Farms, Bordentown, has become the new superintendent of buildings and grounds at the College of Agriculture, New Brunswick.

Appointed — Henry Bibus, Jr., Chesterfield, and Santo Miserendino, Westville, have been reappointed to the Swine Advisory Committee of the New Jersey State Department of Agriculture. It has not been announced officially, but there is a possibility that the Department of Agriculture may adopt a system of earmarking hogs. Sounds like the old days of cattle rustling or chicken stealing!

YOUR GLF CONSUMER PRODUCTS REPORT

Accu-Ray adds superior strength to GLF *Unico* Tires



the 1964 All-Farm lineup of GLF *Unico* tires has extra muscle for man-sized jobs

In six seconds a GLF *Unico* nylon tire gets enough brawn to take on four killers—heat, flexing, impact and moisture.

In that short time, a GLF *Unico* tire cord receives a precise amount of protective rubber coating. This tempering by Accu-Ray, an infrared nucleonic measuring machine, gives the tire added strength to withstand shocks, bruises, and dangerous heat build-up.

It takes this kind of quiet muscle to do farm-sized chores, day in and day out.

For power, there's the Open Center Rear Tractor Tire with the grip and bite needed for more powerful traction and drawbar pull. Its companion, the Tri-Rib Front Tractor Tire provides maximum resistance to side slips.

For performance, there are a fleet of truck tires including the U-54 for low-cost-per-mile highway runs; the RFD dual purpose husky; the Grip-Spur for field and rough road driving; and the famous XBT (Xtra Bar Traction) for 100,000-plus miles of grueling wear on drive or trailer wheels.

For protection, there are the two champion snow, mud and ice tires—famous Redi-Grip and the new, low-priced Uni-Trac.

For pleasure, there are the superhighway-proved passenger car tires, Powercruiser and new Powerlux, with unsurpassed tread depth, width, construction.

For producers, there is the Multi-Rib Implement tire for free rolling farm equipment—with five ribs to prevent sideslip and to provide extra grip on hills and banks.

That's not all. GLF tires are guaranteed to give you worry-free original miles. Ask about the warranty and see for yourself.

As on any good team, each member of the GLF-*Unico* Tire line-up has a specific job to do . . . and does it flawlessly. You'll find this All-Farm line-up (including additional special types) at your GLF Service Agency. Put the team of GLF built-for-the-farm tires to work for you . . . today. *Cooperative GLF Exchange, Inc., Ithaca, N. Y.*

QUALITY CONSUMER PRODUCTS



Look forward...to the best weed control your corn has ever had

Atrazine 80W herbicide gives you an easy one-spray weed control "plan" that's both practical and profitable . . . weed control that ends the competition of most annual broadleaf weeds and grasses, from planting time till harvest. And with Atrazine you're rid of the problems and work of fighting weeds . . . as well as the weeds themselves.

Efficient control saves time and work

The efficiency of Atrazine saves you time and work, because Atrazine does more than other herbicides that are only partially effective. And, Atrazine cuts at least two cultivations from your schedule. The effectiveness of Atrazine against weeds can produce measurable results in higher corn yields. No wonder Atrazine figures so prominently in the plans of so many men who make a business of growing corn.

The value of planning can't be underestimated in today's competitive agriculture. You plan your soil fertility . . . select your hybrid carefully . . . your method of planting . . . the desired plant population . . . all well ahead of time. And it makes good sense to plan your weed control ahead of time too. It costs you time and money to wait until weeds are up and established before you start your control program.

Plan the best possible weed control

A single Atrazine spray gives you the "plan"... weed control that works continuously. A "program" that pays you well for your investment by killing weeds while they're small, before they have a chance to rob your corn of moisture and soil nutrients.

You can spray Atrazine as you plant...broadcast or as a band over the row. Or you can plant first and follow up with a broadcast application. Following your spray, either rainfall or shallow cultivation is needed to carry the Atrazine down to the weed root zone, where it can be absorbed through the roots of germinating weeds. Soon after the weeds break ground they die.

You can also use Atrazine effectively after weeds have emerged . . . until they are 1½ inches high. The spray won't hurt the young corn. But the young weeds will die . . . because Atrazine works through both roots and foliage of newly emerged weeds.

You can give your corn a full season of the best weed control you've ever had by using a single Atrazine spray. Most sprayers designed for farm use can do the job, with a few simple alterations.

Simazine controls late-germinating grasses

Simazine 80W, another outstanding Geigy herbicide, is especially effective against crabgrass, barnyard grass, fall panicum and other late-germinating weeds. It is even less soluble than Atrazine and able to resist leaching for a longer period . . . assuring its location near the surface of the soil where late-germinating weeds sprout.

Ask your supplier for full details and the new color booklet on weed control with Atrazine. Or write to Geigy.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

Geigy

CREATORS OF CHEMICALS FOR MODERN AGRICULTURE

Atrazine





Ward O'Hara is looking at field shelled corn, but his mind's eye sees a bulk tank full of milk.



Ward uses a combine fitted with a corn head to harvest all corn for grain.

We Grow Our Own Milk

by Hugh Cosline

This Central New York dairyman likes his system for harvesting, storing, and feeding high-moisture corn. Here's how it works....

GOOD HOME-GROWN feed for his dairy cows and plenty of it — that's the aim of Ward O'Hara of Auburn, Cayuga County, New York. The only grain purchased is high-concentrate supplement for corn, and he sells each year about 50 tons of hay, 125 tons of straw, and 100 tons of shelled corn. I might add that he also grows a considerable acreage of wheat as a cash crop.

But let's have Ward tell us about his feeding program in his own words:

"Up until two years ago," he said, "I would haul shelled corn to the local feed store to be dried, then haul it home and store it, haul it again to be ground and mixed and then home — which made four trips. Two years ago I bought a Harvestore (20' x 27') for storing high-moisture corn which, with less trucking, saves me about $15 a ton. It isn't only the cash cost; for example, there's the time lost waiting in line during harvest-time to unload at the mill.

"The Harvestore holds close to 200 tons of shelled corn. It took the cows a little time to get used to the wet corn, but they really go for it now. I still dry and store a lot of corn for the young stock and for sale, and this past year we ran short of high-moisture corn and had to feed some dried corn to the dairy herd.

"This summer I put an addition on the airtight silo which gives us the limit on height. I figure it will give us high-moisture corn for the herd for ten months of the year. I am in the position now where I don't really need another one, but I do wish I had a little more wet corn storage to last the entire year.

"When it comes to roughage, we feed low-moisture hay silage in the summer, which is put up in concrete stave silos. We are depending less and less on the pasture. Hay for the winter is baled.

"In actual feeding we try to keep something in front of the cows most of the time. We feed about six times a day. First thing in the morning we give them a light feeding of hay; after they are milked they get grain, some of them as much as 30 pounds of high-moisture corn and supplement. Actually, last year the cows ate corn without supplement for about four months, and I couldn't see any difference in production.

"About 8 a.m. they get silage in an automatic auger feeder when they are turned outdoors for exercise. They get another feeding of hay at noon, silage and grain before the evening milking, and hay the last thing at night.

Early Haying

"We put up haylage the last of May and first of June, and figure on finishing haying (which is mostly alfalfa) by the first of July. In fact, when I sell hay I usually sell the tonnage we cut last.

"You might be interested in how we handle the feeding of the grain. Right next to the glass-lined steel silo is a metal bin to hold the supplement. Incidentally, I built the bin in the farm shop. As the corn goes into a roller grinder the high-protein supplement is metered into it so that we don't have to handle it when the cows are fed by the automatic feeder. In the winter we have a grain truck which is loaded by gravity and wheeled to the cows in the stanchions.

"Back in 1950 my barn blew down and killed 30 cows, for a total loss; I had no wind insurance. I had a little fling at pen stabling, but I didn't like it, so eventually we built an addition and went entirely to stanchions. But now I am milking 110 cows and have stanchions for only 79, so at the east end of the barn I am adding a pole stable with free stalls and hay storage above. Right next to it is the automatic feeder I have already mentioned.

"We handle the milking by turning out 30 cows from the stanchions when they are milked and bringing in the thirty that the stanchions won't hold."

Getting Started

Ward made this comment about getting started in farming:

"A lot of farmers tell how difficult or impossible it is for a young fellow to get started in farming. Actually, if I were young I wouldn't mind starting again right now."

In case you are interested in Ward's approximate age, he started farming in 1937 while he was still in his last year in high school, and was married in 1938. With his farm help he has built most of the buildings, and much of the equipment.

For example, he has a small tractor which he bought second-hand and on which he has welded wheels to take wide tires. He uses this in the spring for seeding and applying liquid nitrogen to wheat. It leaves no ruts even in the wettest land. As already mentioned, he built the metal storage bin for his high-protein concentrate.

Ward uses credit as a farm tool, but with discretion. He says:

"I like to keep my obligations down to 25 percent of net worth or below."

Feeding Profitable

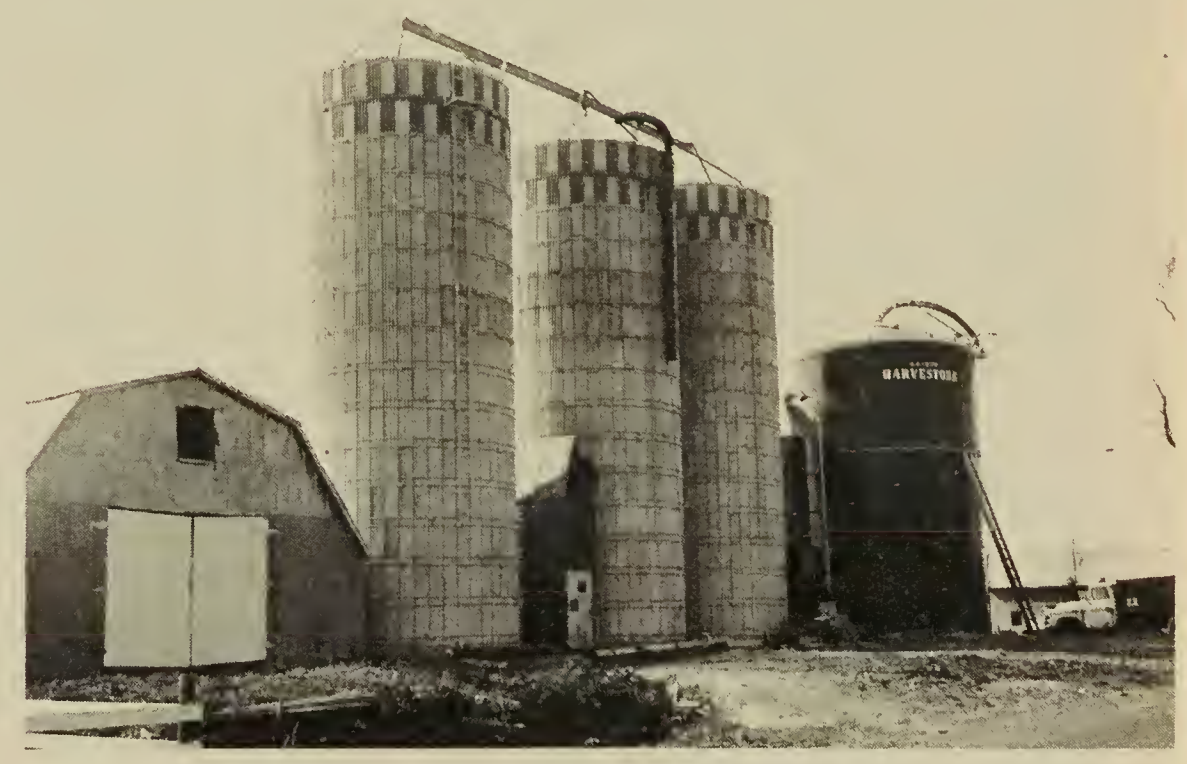
I asked about corn as a cash crop, and he agreed it was about as good as anything. Then I inquired if he could make more selling it as a cash crop or feeding it to dairy cows, and without hesitation he agreed that feeding it to the cows was the best bet.

It takes a lot of equipment to operate a farm of this size. For example, Ward owns two self-propelled combines, each with a grain head and a corn-picking head. "I'm not above hunting for bargains and buying good used equipment," said Ward. "My investment in equipment is high, but the cost per acre is relatively low."

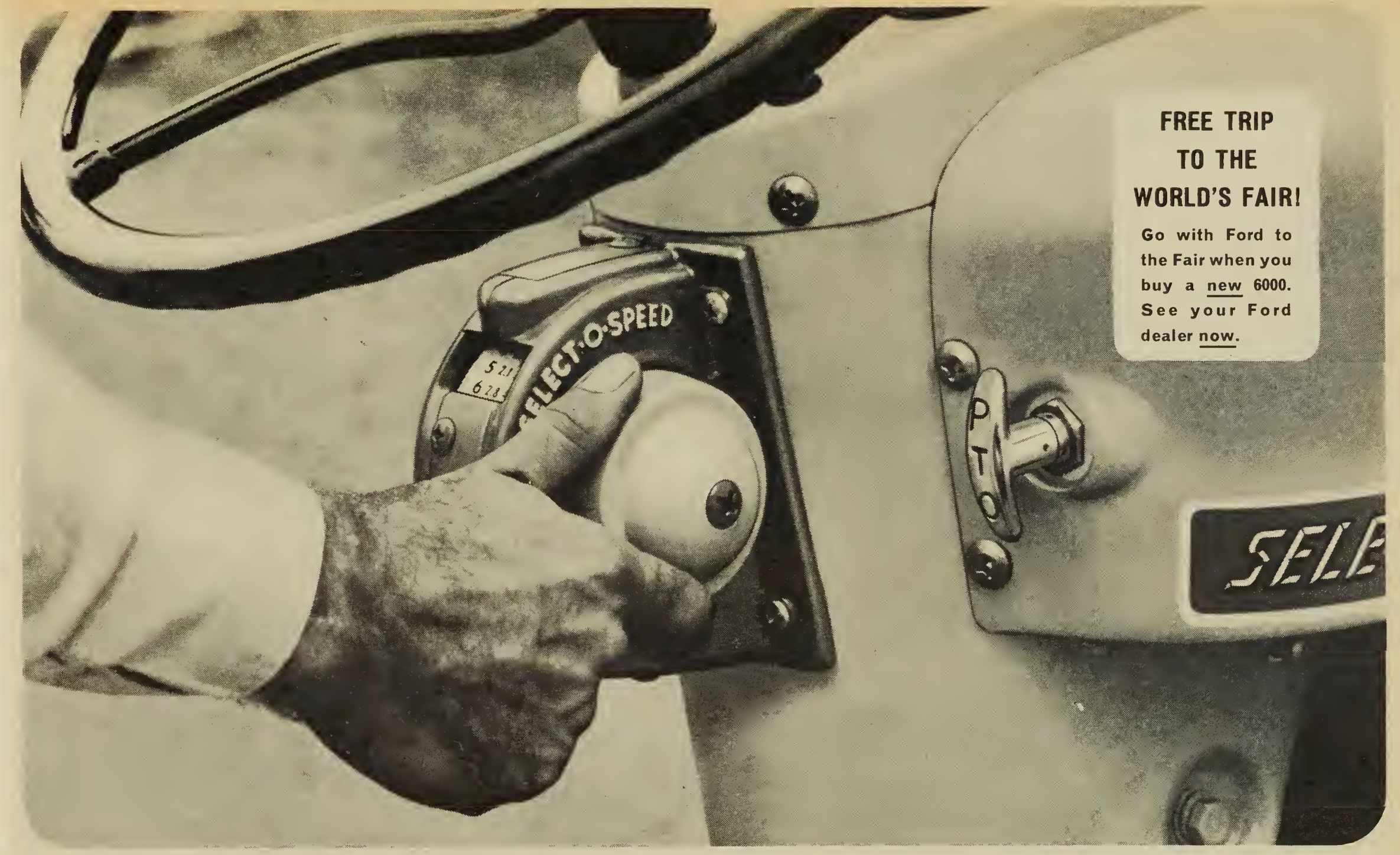
Time For Hobby

Ward has a real hobby. He has accumulated a considerable volume of old farm machinery and tools, including a couple of antique Ford cars, a Ford tractor built long ago, and other things too numerous to mention. I suggested that eventually he'd have to erect a building, catalog his collection, and charge admission. He said he wasn't interested in admission, but he liked to show them to people who are interested.

As you can see, Ward O'Hara runs a sizable business. It takes four full-time hired men to care for the 110 cows, the young stock, and grow the crops. The total acreage is 725 owned and about 350 rented. But lest you jump to the conclusion that Ward is a rich man's son, I found out by questioning that he was married when he was 19 (and Mrs. O'Hara 16) on a cash capital of $10. You could hardly call that being born "with a silver spoon in his mouth!"



High-moisture shelled corn goes into steel silo at right, corn silage in three concrete stave tubs. Note track for silo unloader transfer between silos.



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If you haven't tried Ford Select-O-Speed, you owe yourself the experience. Tractor driving becomes easier than you believed possible. You never touch a clutch . . . never struggle with a stubborn stick. Select the gear you want, on-the-go, and this transmission shifts itself. It's easy as making a change in throttle setting!

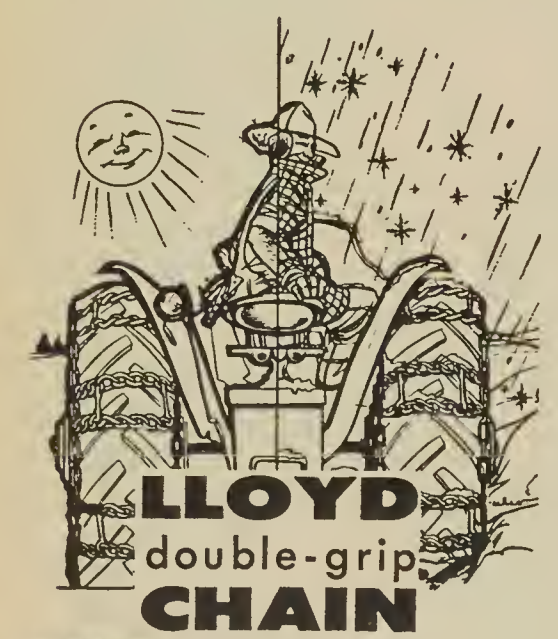
It is more than easy! Select-O-Speed's all-gear drive helps you get the most out of every gallon of fuel . . . more workpower out of horsepower. You match engine speed to load on tillage work. You have full control of ground speed for PTO jobs. No wonder owner after owner says that Select-O-Speed makes his Ford a bigger tractor.

See your Ford dealer . . . find out more about the tractor transmission that's sure to be the most copied in years to come. It's available on a tractor sized right for you . . . from the 2-3 plow Ford 2000 to the powerful 5-plow Ford 6000!

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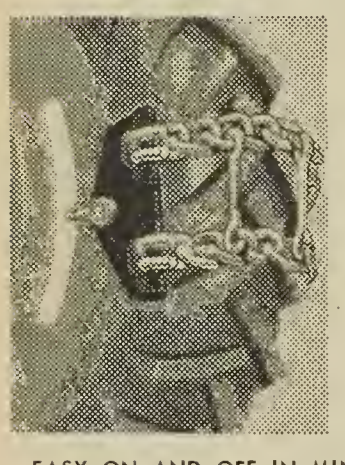
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Here's real action! Lloyd's Double-Grip Tractor Tire Chain takes you through mud, snow, feedlot, stubble-covered field and with the heaviest of loads. Unique cross-chain arrangement keeps the chain on top of the tire for greater pulling power and increased traction. Easy on...easy off, and self-cleaning! Made from case-hardened cross links . . . fits even the largest treads.

New! "MINUTE-MAN" CHAINS



Can be installed while stuck hub deep!

- EASY ON AND OFF IN MINUTES—fast and easily installed in emergencies or for year around use. Fastens simply and securely.
- FULL POWER TRACTION—stays on top of tire where the grip is needed.
- LONGER LIFE—low profile design eliminates shock; distributes traction load evenly. Made from case-hardened cross links.
- CAN BE INSTALLED FROM TRACTOR SEAT.
- 2 SIZES FIT ALL POPULAR TIRES—group 1 fits 7"-11", group 2 fits 12"-15".

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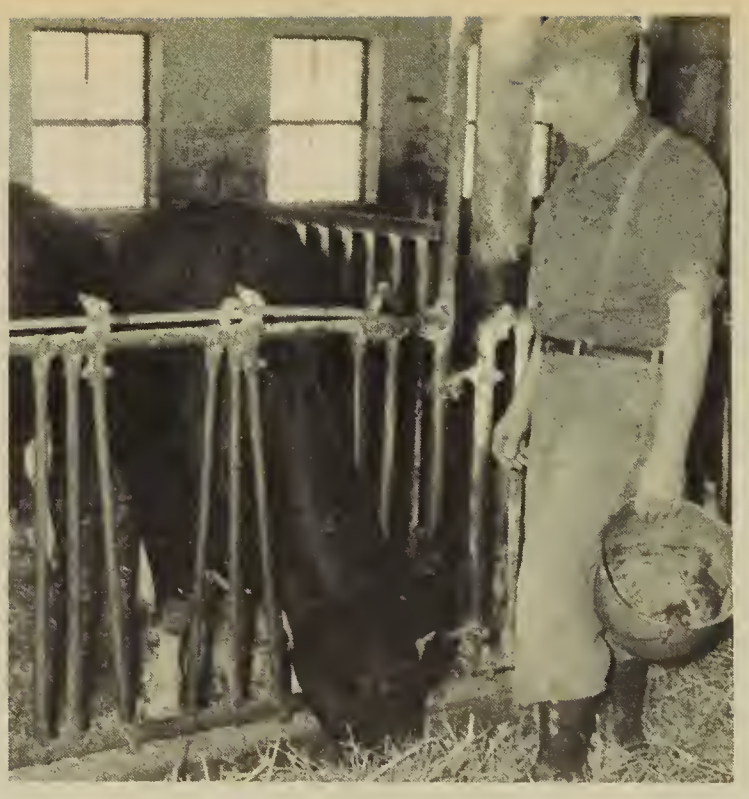
FIX BROKEN DENTURES AT HOME IN MINUTES



Amazing new QUIK-FIX Denture Repair Kit easily mends broken plates; fills in cracks; replaces teeth like new. Fast! Easy to use! No special tools needed. No costly dental bills. Directions enclosed. Works every time or your money back. Send $1.98, enough for many repairs. Brimms QUIK-FIX, Dept. Q-19, 1075 Main Street, Buffalo 9, New York.

RAISING CALVES

By Hugh Cosline



It seems to me that more good dairymen are raising their replacements. Certainly more of them are raising their heifers better.

For example, take a look at the heifers being raised by Stanley Weddle of Homer, Cortland County, New York. "Calves get whole milk for two to three weeks, including colostrum from their dams, but I never let a calf nurse," said Stanley. "Then we get drip milk from the station, which they save when they wash the cans. The milk is colored so it can't be used except for calves.

"We keep several calves in a pen, but stanchion them when they are fed so they don't get the habit of sucking each other."

These calves get hay and a grain mixture from the time they can stand up. Some begin to nibble hay when they are two days old; others wait until they are two weeks old. The best hay is saved for the young stock. Until they are a year old heifers get around 21/2 pounds of grain a day.

"How much do you depend on pasture?" I asked.

"No calf goes on pasture until she is at least a year old," Stanley replied. "That means that fall calves are a year-and-a-half old when they go on. When on pasture we give them some hay twice a week, and salt and a little grain once a week.

"We want heifers to freshen in the fall or winter, so age at freshening varies. Some freshen at 22 months, others at 24 to 26 — or even 30 months."

"How much silage do heifers get?" was my next question.

"None until they are a year-and-a-half old," was the reply. "Corn silage tends to put fat on them. I want them to grow, but keep on the thin side. We like to have them weigh 1,150 to 1,200 pounds when they freshen."

Stanley's herd is milked in two barns, with Ken McConnell in charge of one. They maintain friendly rivalry as to milk production. One year Stanley has first choice of freshening heifers; the next year Ken takes the ones he wants. How does it work out? Well, last year one herd averaged 568 pounds of fat and 16,100 pounds of milk; the other, 562 pounds fat and 15,900 pounds of milk!

We got to visiting about the advantages of raising replacements over buying.

"When you buy old cows you buy trouble," observed Stanley. "Nobody sells his best cows, and there is danger of disease. The experts express some doubt as to inheritance of long life, but here's a cow that's been in the herd a long time. She's a good producer, and I always raise her heifers. I do sell a heifer once in a while, usually for $35.

"Again, if I raise them I know how they have been handled, and I know something of their potential milk-producing ability from our records."

A FOUR-ROW BARN

After a fire, Ulrich Oertle and sons John and Ernest of Bridgewater, New York, were faced with the decision of what type of barn to rebuild. After considerable thought, they decided to erect a 68' x 170' four-row stall barn with 30 cows per row. A two-row barn to hold 120 cows would have to be too long, they figured, for a gutter cleaner to pull manure its entire length. In the new barn, a separate shuttle-stroke cleaner is installed for each gutter, all discharging into a cross conveyor that takes manure to the spreader.

One row of platforms is 70" long from manger curb to gutter, two are 66", and one is 62". One row contains comfort stalls to hold the biggest cows by neck chain; the other 3 rows have conventional stanchions. Gutters are 18" wide, 8" deep at the alley side and 12" deep at the platform side. Cows are bedded with a self-unloading wagon, so support posts are set well forward of the gutter.

Panel Construction

The barn is built with panels consisting of two 3/8" exterior plywood pieces with insulation sandwiched between — 6" thick on the roof and 4" in the sidewalls. Screw-type nails are used in construction for greater strength. Five fans ventilate the stable and help keep frost off the thermopane windows. There are two 20" one-speed fans and three two-speed fans of the same size. Air inlet is along the peak of the barn.

The Oertles are looking ahead to even greater emphasis on stored feeding as a roughage program. "I like cooked-out feed rather than greenchop," John says, There will be some hay storage in a building alongside the barn, but most of the roughage storage will be round in shape.

At present, there are two 14' x 50' silos, and an 18' x 50 newly erected in 1963. Plans are taking shape for a 24' x 60' with bunk feeder for the future, as well as building another 18' x 50' to match the one already up.

There were 160 acres of corn in 1963 on this farm, with about 600 tillable acres. Eighty acres of this were picked and the rest rattled up the blower pipe. Due to the poor growing season, the Oertles had considerable immature and high-moisture corn. They ran the ears through an ensilage cutter and fed the corn and cob meal by scooping it on top of silage in the manger.

More Corn

Plans call for even greater emphasis on corn in 1964 for both silage and grain. "We're planning to move away from hay; I believe baling hay will be a thing of the past on many farms." John says. The Oertles like stored feeding the year around because they believe the quality of roughage is better than with hay harvested under varying weather conditions and at different stages of maturity. But the big reason they like corn is its high yield of TDN per acre.

Completely Mechanized

Corn handling, they point out, is already completely mechanized from "seed to feed." It's a flexible crop that can be harvested for grain if there is too much for silage. "Besides, " John laughs, "corn goes in the ground early, is cultivated by the Fourth of July and then we can take a short vacation. It costs a farmer not to take some time off because he can find some profitable ideas by traveling and seeing how other farmers are doing the job." The Oertles are considering using a topping machine to cut off the tassel portion of corn for silage, then chopping high on the stalk — this to have a silage more concentrated in total digestible nutrients.

Amidst the progressive plans for modern farming on this place is one note of quiet tradition. Ulrich, who grew up and lived in Switzerland, has a large showcase in his living room. Inside are three huge cowbells, the type used by the Swiss to hang on the necks of their cattle when moving them to and from the grazing areas of the Alps in spring and fall. Their deep-throated tones speak of life in a less hurried land, of the tranquillity of lush pastures amidst the towering crags that ring to the sound of yodelling herdsmen and their giant Swiss horns. — **Gordon Conklin.**

A base-surplus plan for

VEGETABLES

by R. Brian How*

Northeastern processors have used contracts with growers to obtain their supplies of vegetables for many years. A study conducted 40 years ago reported that most of the vegetables except snap beans grown for canning in New York were even then raised under contract. Contracts in use at that time contained most of the important provisions included in similar documents today.

Contracts offered by most canning companies for perishable vegetables have generally been on an acreage basis, whereby the processor agrees to take the total product of a specified number of acres at a fixed price or schedule of prices. In contrast, potatoes for chipping are usually contracted on a tonnage basis, as are vegetables for baby food manufacture. These contracts are written in terms of a specified quantity of the product.

Several Advantages

There are several advantages to both parties in an acreage contract for perishable vegetables, but also certain problems — particularly for the processor. For this reason some firms have abandoned acreage contracts in favor of other types. This article is intended to suggest ways of modifying the acreage contract to retain the desirable and eliminate the undesirable features.

Acreage contracts have been widely used in the past partly because processors prefer to supply seed and supervise growing, timing and method of planting, cultivation methods, and pesticide practices. Timing of harvest is also extremely critical for quality control. Under an acreage contract the canning company field staff can follow the progress of the crop, working with the grower, and schedule harvest and delivery to the plant.

Some Problems

Problems arise, however, when weather conditions or other things cause variations in yield from year to year. At fixed prices, and without delivery restrictions, growers "clean up" in years of high yields, but suffer losses when yields fall below average.

Processors' fortunes tend to follow the opposite path — in years of high yields, especially when these are widespread, the resulting large pack often must be sold at low prices. Because of the nature of the market, processors may actually earn better returns in years of relatively small production than they do when there is a large national pack.

This problem of varying yields from year to year is becoming more severe. There are fewer but larger processing firms today and, because they have specific markets they plan to serve, their production must be scheduled according to carefully-prepared budgets.

Some Changes

Two changes, both similar in effect, have been introduced in some northeastern vegetable contracts in recent years. One of these has been a limitation placed on the total quantity of product that could be delivered per acre under the contract. The other is to change from an acreage to a tonnage contract.

Placing a maximum limitation on deliveries per acre would seem to be violating good economic principles. Where this limitation applies across the board it may severely restrict growers on the most productive soils, or those who do a top job of management. It may also discourage growers from selecting fields and using practices such as irrigation that will increase their total yield and reduce yield variability from year to year.

Tonnage Contract

A tonnage contract seems to work satisfactorily for commodities such as potatoes for chipping. These contracts usually specify the variety, and may contain certain requirements with respect to processing qualities. Provided these requirements are met, the raw product is generally acceptable as far as the processor is concerned. Other markets are usually available for growers' production above amounts contracted.

For perishable vegetables, however, where growing practices and stage of maturity at harvest are important in influencing quality, a tonnage contract has serious limitations. There are frequently no other market outlets available for production over the contracted amount. Growers would have little incentive to try to produce close to the maximum amount of the contract; they may tend instead to restrict plantings so as not to produce more than the contract requirement.

Possible Answer

A possible solution, and one encouraging greater efficiency as well as reducing some of the economic risks involved, might be to establish a kind of base-surplus pricing system in an acreage contract. Processors wishing to use this type of contract could develop it with the growers without any reference to a public program. There would be no need to have exactly the same form of contract

(Continued on page 31)

*Department of Agricultural Economics, Cornell University.



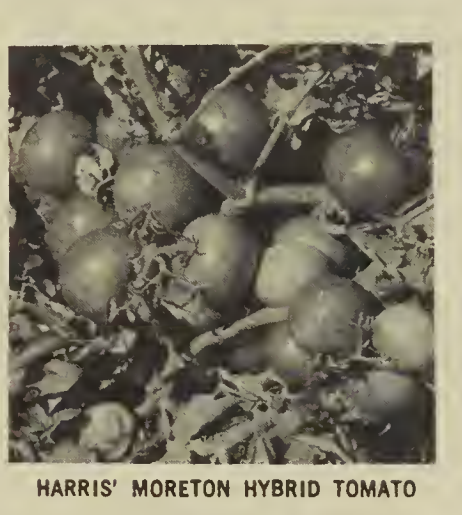
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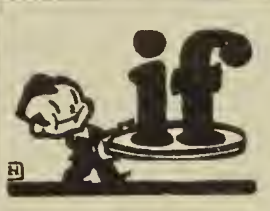
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Gayway Farm Notes

by HAROLD HAWLEY

CUSTOMERS RIGHT OR WRONG?

The old cliche tells us that the customer is always right. I have always interpreted this to mean that he who had the purchasing power could and did decide what he took home from the store or the shop or the display room. There are disturbing signs in this day of rapidly-changing styles and models, of systematic promotion, and of planned obsolescence, that perhaps the customer is no longer right. Perhaps he or she with the roll of green is no longer the main decision-maker as to what is purchased.

Let's face it. Milady comes home disappointed with her new pair of shoes. She's searched all over for something other than the long-toed things which are the current fashion in female footgear; the old familiar shape and style can no longer be found.

This situation prevails if it's a dress or skirt or whatever. The current fashion is what's available. I'm sure it's a shock to many designers that some people just aren't ready for New York's latest — but the customer is no longer right in her taste. She'll buy the latest or go without.

Compacts Convince

The rest of the public fares no better. It took extensive imports of European compacts to convince the Detroit designers that everyone didn't want a longer, more powerful, more expensive deluxe car; some of us merely wanted economical transportation and not status. Even now one wonders if the customer is right as the American compacts become longer, faster, and sportier! Maybe enough persuasion and promotion will make a nation of sports car enthusiasts of us, but in the meantime some customers aren't able to buy what they prefer since it isn't offered.

Fine Choices

Never, of course, have we had so many fine choices offered us when we go to purchase a new tractor. This is great, but just possibly not everyone needs or wants every tractor he owns to be complete with every hydraulic outlet imaginable. Maybe in the second or third or fourth tractor on a particular farm all that is really needed is pull power with perhaps one hydraulic outlet.

You see, some farmers feel that if they have part of their power units equipped to handle scoops, plows, etc., etc. some of the other tractors can do without such expensive extras. The only trouble is that the buyer finds these hydraulic systems to be an integral part of the new tractor he wants to buy. Thus, for many, the cost of a trade or a purchase is unduly high.

Keep The Old

So, for lack of choice some of us run an old tractor longer (even much longer) than we prefer. It would be fine if we could replace it with a new one about like it, but to trade for a new one complete with the "works" is just too expensive — and even wasteful.

After all, if on the "spare" tractor there are gadgets which won't be used just to spread manure, haul wagons, and plant corn, the cost of that tractor is too high. In spite of the fact that we are offered some of the finest, fastest, most versatile tractors ever (and I'm as thrilled with them as anyone) many potential customers aren't being offered what they would like for a second tractor — just economical power with no frills.

A BETTER MOUSE TRAP!

Last summer the silage we fed was thrown out by a silo unloader which appealed to us because it was simple in construction and promised to be easy to change from silo to silo. We have since used it as we fed out a silo of new corn, and last week we changed it to another silo.

It makes good sense to be able to changeover in about three hours — disassemble, haul up, assemble, and get it going. With about 4 bolts on the whole rig, it's no trick to set it up. The chain speed gets the silage moving fast enough to throw it out, getting away from a blower.

(Continued on opposite page)



Let's look at these money savers up close, starting at the top: The *MAC 15,* new chain saw cutting champ for farm, forest, home, camp, with McCulloch high quality features, yet priced down low. The *200,* with fingertip controls, automatic rewind starter, four-shoe safety clutch; cuts at all angles, even overhead and sideways. The *250* features fingertip primer for fast starts in any temperature; extra cylinder port increases power for heavy-duty felling and land-clearing. The *380* does the *big* jobs—fells trees up to 60″ in diameter, limbs and bucks like a pro; insulated fuel tank with vented cap; ball bearing crankshaft and needle bearing clutch. See all four of these dependable direct-drives at your McCulloch dealer's. Pick the model and price best for you and save yourself some saw bucks! For free, color literature write McCulloch Corp., Dept. AA-2

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(Continued from opposite page)

After letting a silo unloader bought some time ago lie unused in the shed for two years, it's nice to let the machine do the work — and nice to think someone has been able to make a relatively simple machine which will do the job. I'm well aware that a silo unloader is no new machine, but one which is really satisfactory is a new experience for us and we're enjoying it.

This makes it easier to begin to think in terms of automatic feeding. Certainly there's little sense in getting a lot of feeding equipment lined up unless the silo unloader is satisfactory.

I'm much interested in the arrangement just finished by friend Ward O'Hara on his farm out west of Auburn, New York. It's a pole shed fastened to the end of his barn and housing his feed bunk. His cows get their silage when they are turned out for exercise and checking for heat. Not only is his silage handled automatically, but I like the idea of the cows being out of wind and rain on bad days.

His bunk is long enough so that in summer his 120 head will all be able to get to it at once for their feed. He cleans the concrete slabs on either side of the bunk with a blade. This pushes everything into a gutter which has a barn cleaner in it. It makes a pretty slick arrangement. *(Editor's Note: See elsewhere in issue for story on O'Hara setup.)*

SNOW GAUGE

Frequently when snow gets deep and it becomes a problem to spread manure, I remember a comment Ed Eastman made in one of his columns several years ago. He told about having ridden somewhere around the State and noticing the evidence of difficulty in spreading. Some dairymen had spread in circles, others where the snow had blown off, and some didn't!

Our fields bear some evidence of the problems we have been having. With 20 inches of snow we have been using the crawler tractor (with blade about half lowered) ahead of a wheel tractor to get through. Even then, we go where we can and not always where we'd like to.

Doris recently had occasion to fly to Cheyenne, Wyoming. She said she could tell quite well from the air where the snow was deep. It was just a matter of observing whether the spreading was being done in long parallel strips or in a haphazard way in the fields nearest the barn.

NET RETURNS PER COW

Like so many others, we have not fed our cows up to their potential over the years. There can just be no other explanation for the sharp upturn in production. We've got so sold on feeding more grain to the fresh cows that we went to 38 pounds a day on one that got over the 100 pound level. This higher rate of feeding is paying off in more return over feed cost and more net return per cow.

There is, however, one disturbing by-product. More grain before and after freshening is resulting in our cows having larger udders at freshening time and for some time thereafter. This leads to more teat injury and — because of the injuries (not the feeding) — in more mastitis.

Naturally, the rate of turnover of the herd is higher under these conditions. It's hard to measure, but of course every time a cow has to be kicked out of the herd it costs money to replace her. Our net return per cow or for the herd is therefore less than would appear to be the case just looking at production and feed cost figures.

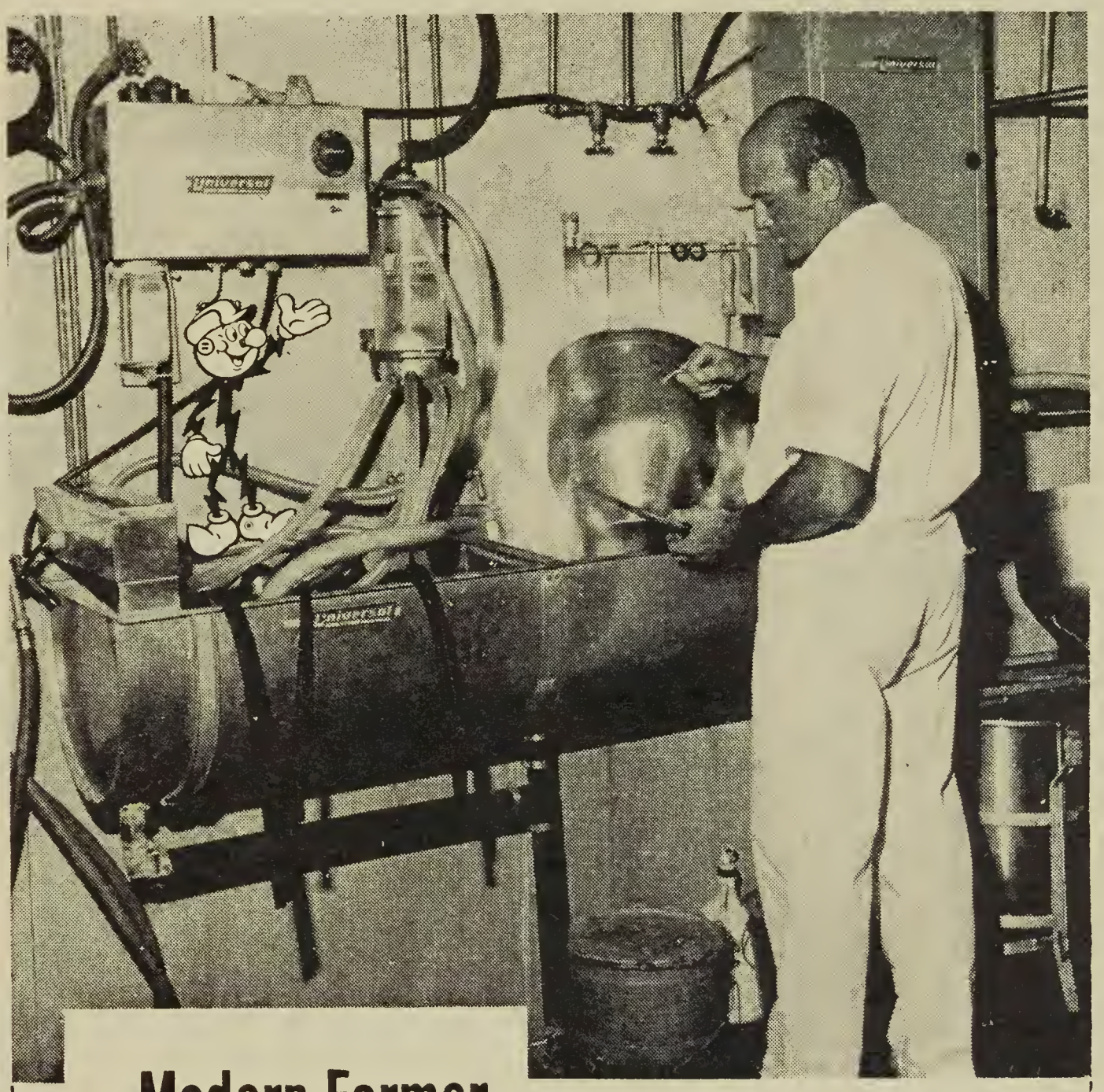
I suppose if we could stand it we should eliminate those cows with udders that aren't hung tight. In the meantime, it's rough to go to the barn and find that another of the good ones has stepped on herself!

ICE SKATING DELUXE

Not for the world would I give the impression that I'm old, but when I was a small boy the whole family sometimes went down to the Canal to skate. This was the Erie Canal, which served after Clinton's "Big Ditch" and before the present Barge Canal.

We kids were too small for skates at that time, but we were pulled along behind the skaters on sleighs. Such rides were very much a part of the Christmas or New Year's Day celebration, when the family and relatives all took to the ice. This was in the days when skates fastened to the shoes with toe clamps, tightened up with a key and with a strap over the instep to hold the heel of the skate to the shoe. So far as I know this was before shoe skates made their appearance — at least I never saw any then.

Perhaps the most spectacular part of this whole affair was the custom of building fires along the bank at night at points where different families or groups put on their skates. I know of few present-day recreation activities which involve whole families or neighborhoods the way skating did on the old Canal.



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WHAT'S NEW IN THE MAPLE?

by H. V. Shute*



IN THIS age of accelerated maple research which has provided many new items of maple equipment, I can sum up my experiences in a very few words, namely, when something new is offered try a few before you buy.

The Vermont Markets Division, which enforces the only compulsory maple grading law in the United States, is conducting, with some 1,500 sugarmakers, practical research to develop new methods and to try out new products as they appear. Unfortunately, there is a general lack of basic research and practical testing prior to offering new products for sale.

Let's take a look at some of the new items introduced recently — the fairly new plastic buckets, for instance. Because they are light in weight and easy to handle they were bought in large quantities last year. They worked — except where they were blown completely off the tree, or blown to an angle that spilled most of the sap, or where the spout split or popped out of the tree!

I personally tried a plastic pipeline, laying it out directly from the drum it came on. The first batch of syrup made from the sap was flavored with plastic and would have been a commercial loss, but after the inner plasticizer was washed away the syrup was free of foreign flavors. In years past some producers lost entire drums of syrup made from sap collected from new plastic bags.

This year, in my work with the Markets Division, I discovered a plastic flavor in syrup packed in plastic bottles. Failure to prewash plastic containers, and the selection of the wrong kind of plastic bottles, have cost a large amount of loss and consumer dissatisfaction.

Defoaming Agent

For several years we in the Division have sought a proper defoaming agent. We found that an odorless defoaming agent had been used by reliable syrup packers for many years. Evidently the success of the sample trials distributed to sugarmakers has created a chain reaction, and defoaming agents appeared on the market.

One particular item is priced at several dollars and gives off an odor of rancid shortening; the directions advise that it be kept under refrigeration. This reminded us that previously we had tested a maple syrup preservative by preparing a concentrate as instructed. This concentrate (that cost more than ten dollars a jar) emitted an odor reminiscent of rubber sneakers drying over a hot-air register.

Another example of inadequate basic research before selling is the material offered for filtering syrup. In some instances nylon paper does well as a prefilter of sap or a liner placed above the cloth filter, but not as an only filter for syrup.

(Continued on opposite page)

*Markets Division, Vermont Department of Agriculture

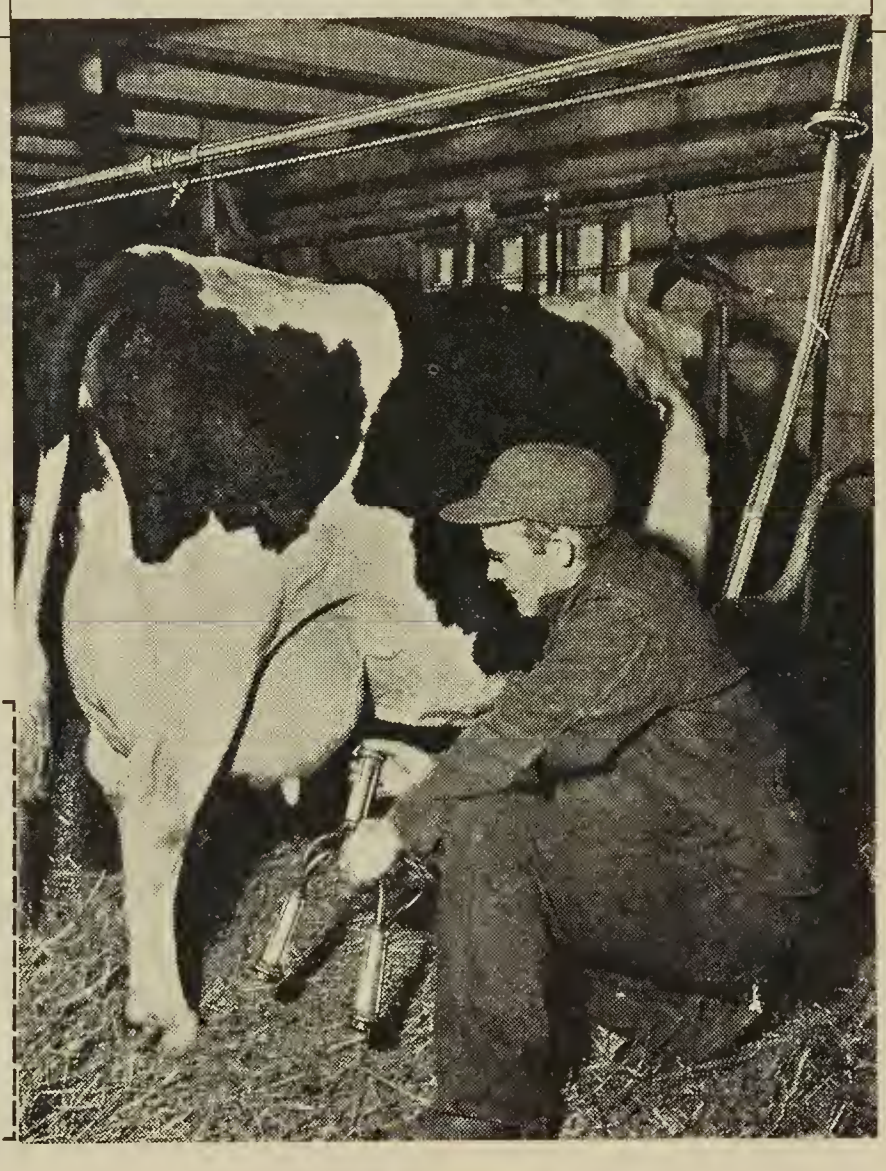
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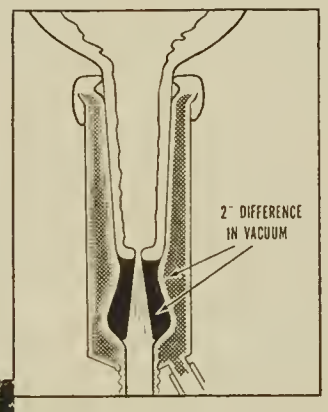
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(Continued from opposite page)

As wool felt hat-type filters were replaced by flat woolen filters, the wool was replaced by orlon, and now the orlon may be replaced by a new miracle fabric called feuron.

New Filter

And since many Vermont sugarmakers have increased production faster than their filters will accept it, some have purchased pressure filters orginally made for other purposes and to which a clarifying powder is supposed to be added. Some of these powders remove part of the desirable flavor as well as color; doing so is illegal in Vermont.

Of all of these filter types, the original felt hat filter causes more off flavors — sometimes causing a taste like the material used to protect the felt from the moths between seasons. While tracing down one of the most baffling cases of "perfumed syrup," a Markets Division inspector discovered that the perfume came from a filter stored between seasons in a cedar chest filled with feminine apparel!

Vacuum Helps

The encouraging item on filtering is the fact that laboratories have for years increased as much as ten times the rate of gravity flow through their filters by creating a vacuum in the tank below the filter. This is just another of the many maple problems which are badly in need of basic research to discover, for instance, if a filter can be developed on which the filtering material can be quickly replaced, and under which a vacuum will greatly speed up the rate of flow. Cooperative research in designing filters has resulted in at least one commercial sap filter which fits across the sap storage tank.

There has been much misinformation disseminated concerning the size of maple cans. The truth is that the calibration tests conducted by the Vermont Markets Division resulted in two of the three can manufacturers changing their specifications until they are now very nearly perfect. Cans should be so constructed that filled to the brim each holds a legal gallon of syrup.

Now that the can problem is practically solved and nearly all the hydrometers sold meet legal standards, the Markets Division is turning to a long neglected problem — the all too common deterioration found in both temporary and sealed containers of bulk syrup. Because the chief cause of syrup spoilage has been the presence of air in the container (which in turn promotes the development of yeast and mold) we are concentrating on securing airtight containers and creating a vacuum pack of bulk syrup. We have already converted a large number of used five-gallon honey containers to airtight syrup containers. Now we're trying to use surplus forty-quart milk cans by replacing the unsealed lid with a soldered closure and a threaded airtight outlet.

Several hundred sugarhouse visits over the past few years show the need for larger vents and hollow box flues above the evaporator. In future construction, thought should be given to the possibility of two levels for improving gravity flow from the evaporator through the syrup filter to the container.

Basic research is again needed to develop a better heat exchanger than we have devised so far in order to package syrup with the least amount of damage. Fancy syrup can sometimes be reheated for a long period without changing color, but no syrup can be reheated without losing a bit of its original maple flavor. Neither can Grade B be mixed with Fancy with any result except a diluted Grade B flavor.

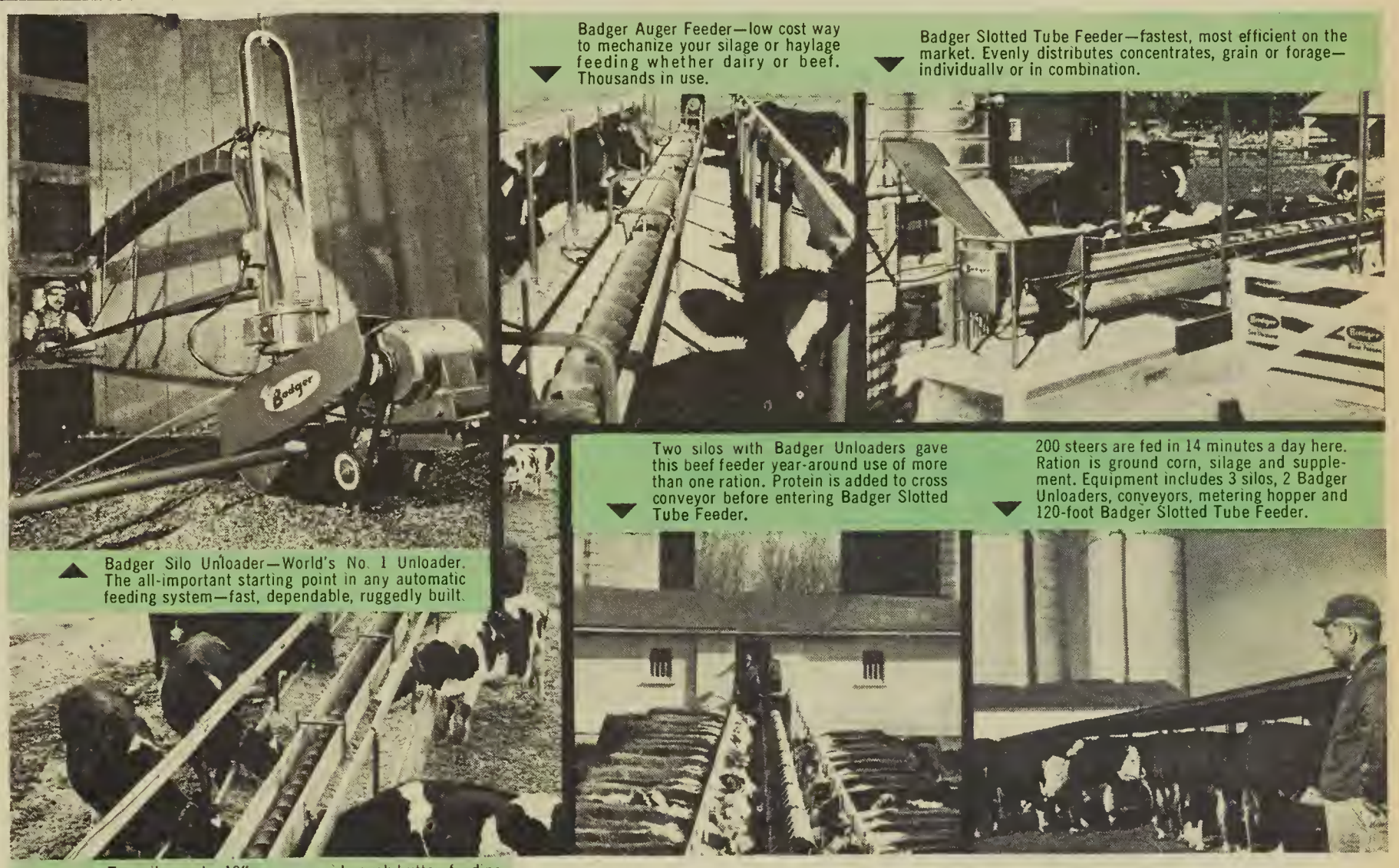
The effort to retain quality production in central packing operations is a development which will lead to refrigerated sap and the use of sap grades. The fight to re-establish a tariff on maple imports to a fraction of what they used to be may, if secured, only affect the higher grades of syrup. Much remains to be done to maintain the high quality of and secure fair competition for pure syrup.

DOLLAR SIDE OF MAPLE

Fred Webster, agricultural economist at the University of Vermont, reports that an average price of 5.6 cents per gallon was paid in Vermont for maple sap delivered to central evaporating plants in 1962. These plants buy sap from many producers, similar to the way a central milk processing plant buys milk from nearby producers. The price is predicted to be about the same in 1964; Fred recently wrote the American Agriculturist as follows:

"Reserves of domestic maple appear to be moving normally; reports on Canadian maple indicate sizable reserves of commercial quality, but no great excess of table quality.

(Continued on page 24)



11 BEST WAYS TO FEED MORE LIVESTOCK *WITH LESS WORK*

Want to save time and whittle down labor? Trim production costs? Looking for ways to handle more livestock . . . and still not work so hard? Badger, the leading builder of automatic feeding systems, presents their newest automatic feeding book. It describes actual on-farm feeding setups which do all these things, and more. It's packed with ideas on feedlot planning and ways to mechanize your own individual feeding operation. These are systems for every situation—from the least expensive to the largest automated layout.

The photos on this page give you a glimpse of some of the systems described in this full-color book. Before you turn this page, tear out the coupon below and send for your Badger Automatic Feeding Systems Book. It answers a lot of questions on how you can mechanize—and the many advantages of going about it with Badger... No. 1 in Mechanized Feeding Equipment.

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It's New

Automatic Sprayer — Among the many interesting exhibits at a recent G.L.F. Show was an automatic sprayer device for dairy cattle. It is actuated by a radio field set up around wires that dangle in the path of the cow as she goes through a doorway.

Research with this indicated that there have been some problems with electric eye control, and with the type of mats used at entrances to supermarkets and other stores upon which a person steps in order to open the door. Radio control overcomes these problems.

The device was developed by Sage-Craft, Inc. of Norwich, New York. The company calls it a "proximity control." Earl Sage comments that the radio frequency field is of a nature that won't bother radio reception.

Wheel "Lugs" Are Back — The Firestone Tire and Rubber Company will test an anti-skid device for tires in several northern states this winter. The idea is tungsten carbide studs encased in plastic and imbedded in the tire tread, giving better traction and stopping ability on icy roads. Tests last winter indicated a significant improvement in stopping and a 30 percent increase in acceleration. The idea has already met with acceptance in several European countries.

Mechanical Cabbage Picker — Researchers at Cornell University are in the early stages of designing a mechanical cabbage picker. Ideas for pulling the cabbage plant from the ground, root and all, then carrying it past a cutting mechanism to remove root and leaves, are being studied. They haven't yet found the best location for cutting.

When the picking and cutting difficulties have been ironed out, work will center on conveying the vegetable to truck or bin. The Cornell machine is being designed to pick for both kraut and fresh markets.

New Tomatoes — Successor to the original Rutgers tomato, equal to it in flavor and texture (and surpassing it in other ways) is the new variety named "Rutgers Hybrid." It is beefsteak type, the fruits are semi-flattened and larger, and it ripens uniformly. Two other varieties described by Dr. Bernard Pollack of Rutgers are "N.J. 300," and "Scarlet Knight."

These three varieties stretch the tomato season. The first fruits of "300" were ready the last week in June; those of Rutgers Hybrid on July 17 — with "Scarlet Knight" ready July 8. Packages of seeds of the three varieties can be had for $1 from The New Jersey Vegetable Growers' Association. Orders should be sent to Dr. Bernard Pollack, Rutgers University, New Brunswick, New Jersey; he will then forward them to the Association.



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For name of nearest dealer, see Yellow Pages or write to Homelite.

HOMELITE XL-12

Syrup..... (Continued from page 23)

"Our discussions with a limited number of central processors to date indicate little change in price schedules. Some processors are becoming more aware of quality control and may be expected to check this closely — although some real low-grade, late syrup was sold to the bulk trade in 1963.

"If these predictions hold up, I would expect processors to pay five to six cents per gallon for sap with a brix value of 2.5 or thereabout."

Over in New York State, Extension Forester Fred Winch says that newer or smaller producers use a system of paying 1.5 cents per gallon for sap with a 1.5 percent sugar content, 4 cents for 2 percent, 6 cents for 3 percent, and 8 cents for 4 percent. Fred reports that a more sophisticated payment schedule is as follows:

SUGGESTED RATE OF PAYMENT FOR MAPLE SAP

Percent of Sugar Content	Cents Per Gallon Delivered
1.3	.5
1.4	1
1.5	1.5
1.6	2
1.7	2.5
1.8	3
1.9	3.5
2.0 (Base Price)	4
2.1	4.3
2.2	4.6
2.3	4.9
2.4	5.2
2.5	5.5

Continues on up at rate of .3 cents for each 1/10 of 1 percent sugar content.

If sap is purchased at roadside instead of delivered to central evaporating plant, a deduction of from 1/2 cent to 1-1/2 cents per gallon is made for cartage.

By the way, if you're interested in digging into the financial figures about the central evaporator operation, write to the Mailing Room, College of Agriculture, The Pennsylvania State University, University Park, Pennsylvania, and ask for a copy of bulletin 697 entitled "Economics of the Central Evaporator in Maple Syrup Production."

COMPULSORY WORKMEN'S COMP.

Bob Smith, of the Department of Agricultural Economics at Cornell, writes as follows:

"A bill introduced in the present session of the New York State Legislature at the request of the State Department of Labor would extend Workmen's Compensation on a compulsory basis to all farms with an annual cash payroll of $500 or more. The farmer's own children under 18 employed by him would be exempted from the provision of the bill.

Arguments For

"In support of the proposal is the belief that farm laborers need and deserve the protection of compensation insurance as much or more than other groups of workers. While farm workers make up only 2.5 percent of employment in the State, they experienced 18 percent of all occupational fatalities from 1945-1961.

"Farmers now carrying Compensation Insurance voluntarily are, it is claimed, forced to compete unfairly with farmers not accepting their social responsibility to do so. Another advantage would be unlimited protection for all farm employers against possible claims by their employees for sickness or injuries associated with employment.

In Opposition

"Those opposed to the bill believe that the social benefits gained would amount to much less than the cost in loss of freedom of choice by the farmers, dollar cost to them, and the additional red tape involved. Probably most important to those opposed is the strong personal conviction on the part of most farm employers that they should not be forced into such a program.

"Workmen's Compensation premium rates range from $4.90 to $2.50 per $100 of annual payroll, depending on the type of farm; most farmers qualify only for the higher rate. These New York rates are much higher than rates in most other states, and forcing Empire State farmers into the system hurts their competitive position. It is also argued that while farmers and their children make up the greater part of the farm labor force, they receive no protection from Workmen's Compensation."

Better contact your legislators if you have a stake in the decision to be made at Albany.

IF YOU BUY FEED BE SURE TO READ THIS!

It is becoming clearer every day that if the disparity in freight rates between the South and the Northeast continue, the poultry industry in the Northeast will likely die a not-so-lingering death. At the present time, freight rates on corn brought into New York, Pennsylvania, New Jersey, and New England are about $5 per ton higher than are rates on that going into competing areas of Delmarva and farther south.

The poultry industry is already a very low-margin business, and $5 a ton on feed means about .8 cents per dozen in the cost of eggs. Dairymen also feel the difference, but dairy products from the low-freight area are not really much competition to northeastern milk, as is the case with poultry meat and eggs.

The commissioners of agriculture of the northeastern states were represented on January 30 by Joseph Gill, Commissioner of Agriculture in Connecticut, at Chicago in a hearing with the Association of Eastern Railroads. His basic argument was that unless the railroads give freight rate relief to northeastern poultrymen there will be no poultry feed tonnage to haul in the years ahead. This is the first time in many years that all the northeastern commissioners of agriculture have gotten into a scrap with the railroads over freight rates.

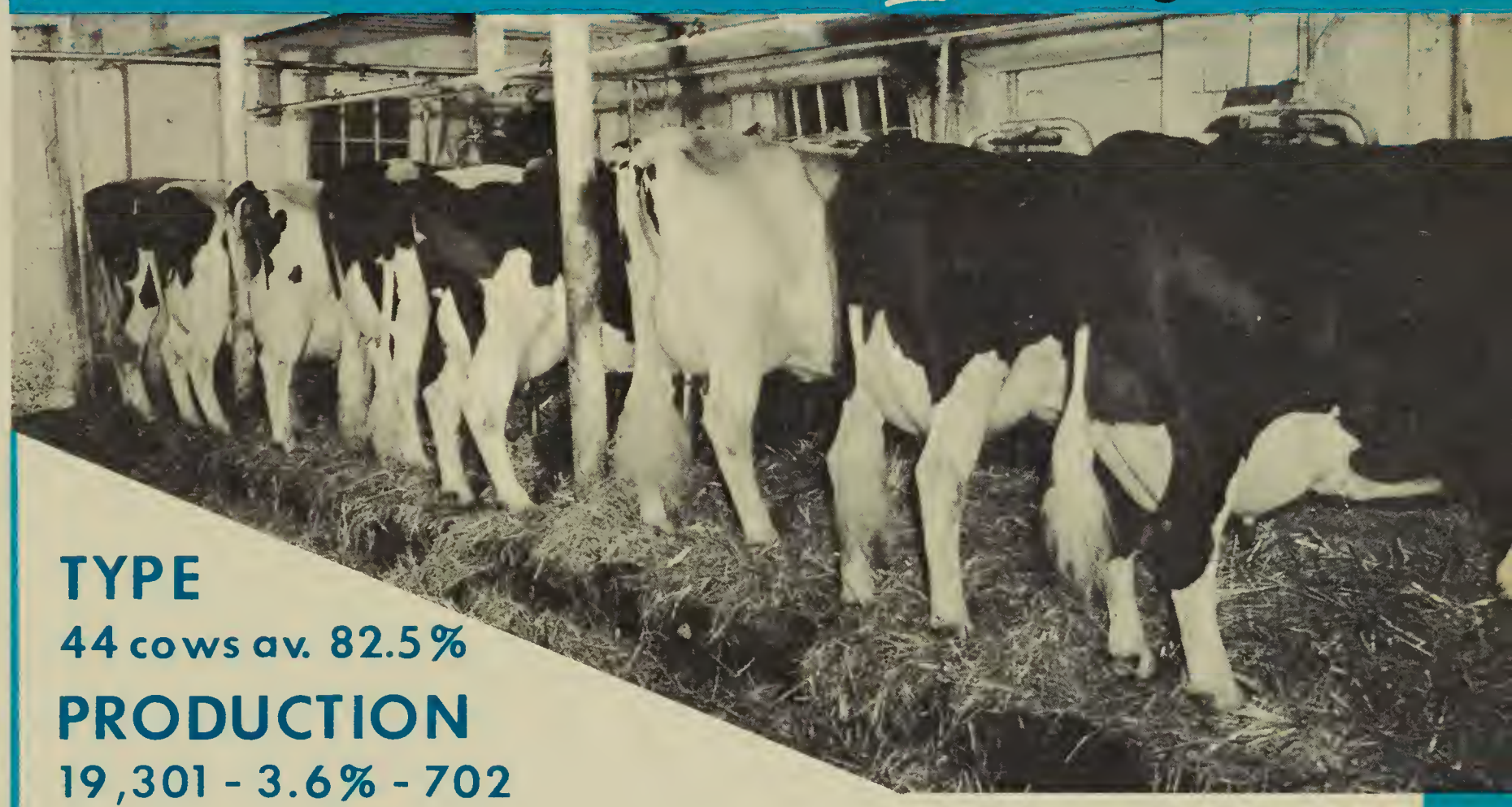
If the railroads refuse to budge — or if they refuse to budge enough — the next step will probably be to go to court in an attempt to force the "Roads" to do away with the differences in rates that threaten the future of northeastern poultrymen, and also put the squeeze on the region's dairymen.

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PRODUCTION
19,301 - 3.6% - 702

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The Saxojac herd has 44 cows with a current DHIA yearly average of 19,301M, 3.6%, 702F, and a classification average of 82.5%, exceeding the breed age average by +3.2%. In ten years, milk production has grown by 8,085 pounds per cow.

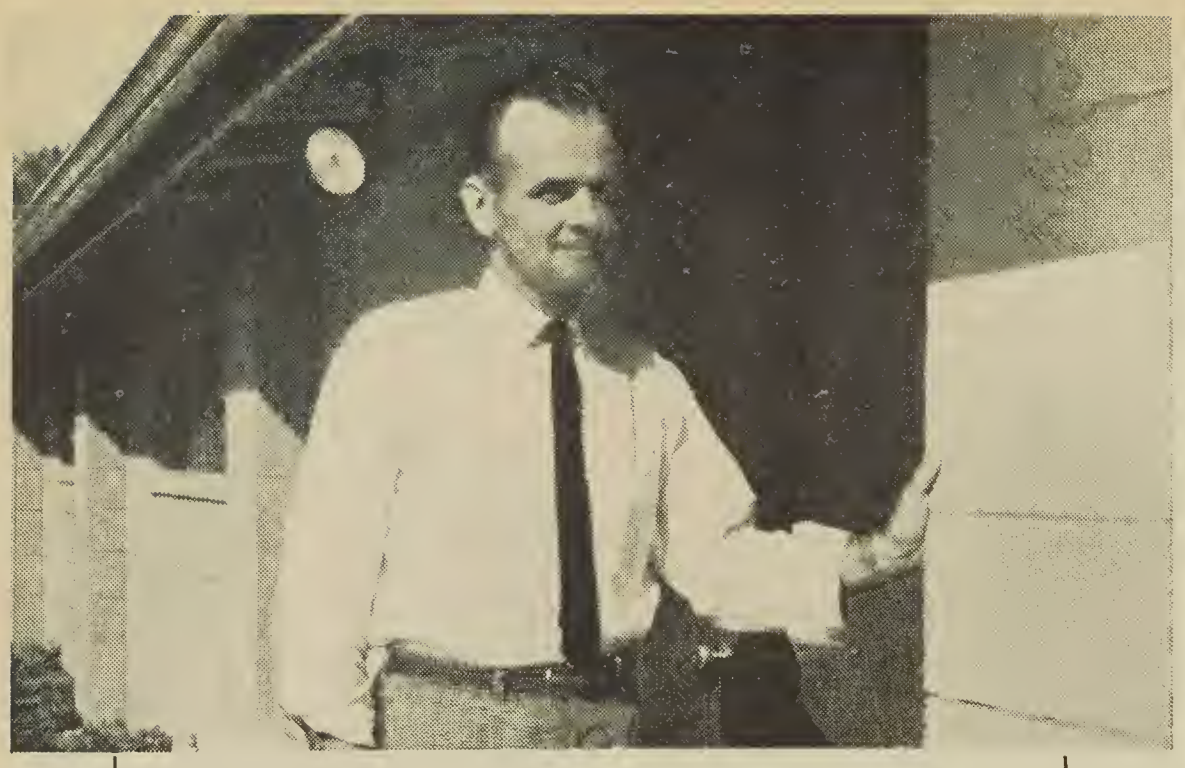
"The high milk production from NYABC AI Proved Sires is what pays the bills," says Howard Saxton.

In the photo at left are l. Bob Hargett, c. Howard Saxton, and r. Paul Dedrick, with one of their favorite cows. Saxojac Okat Dominator Lass, a daughter of Arab, has a current 9y7m record in progress of 35,980M and 1,340F on 2X in the first 335 days.

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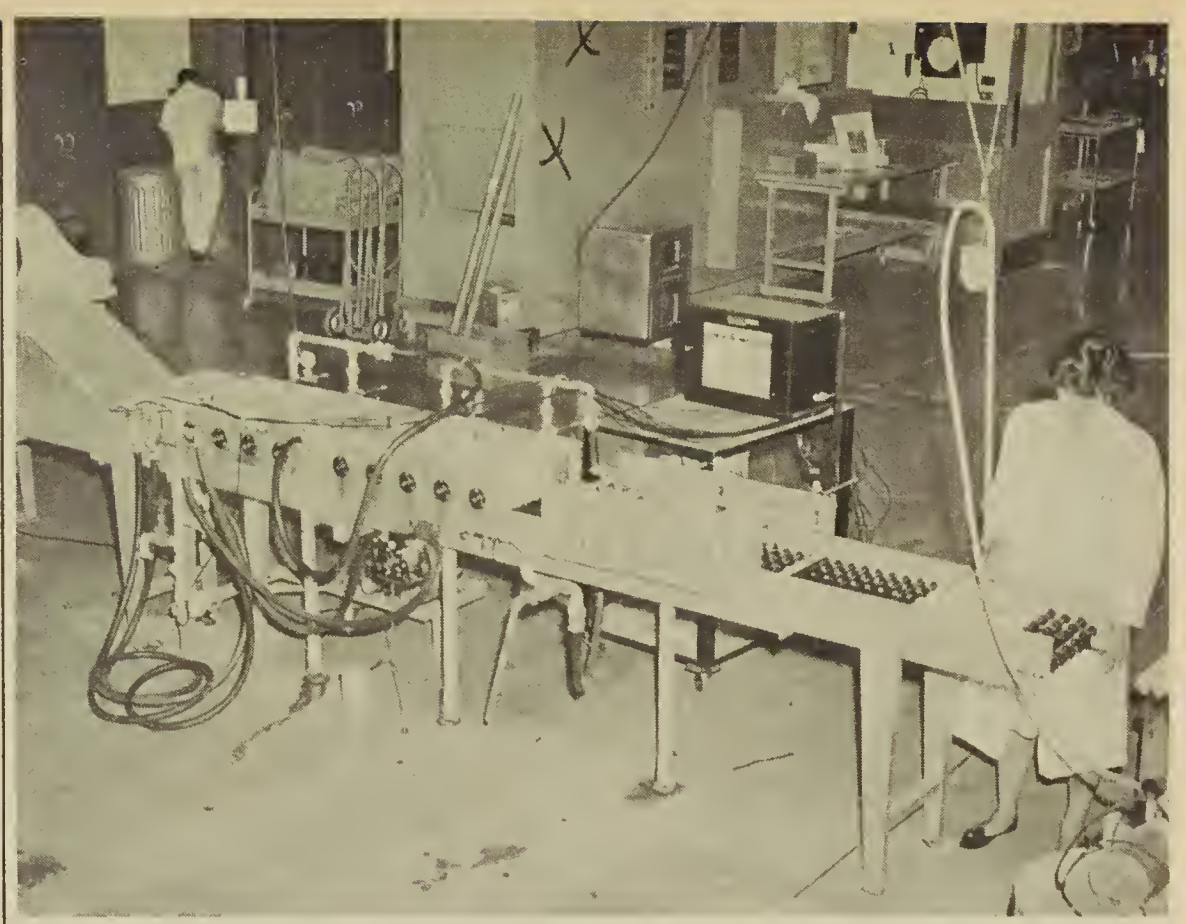
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This experimental egg cleaner being tested at the University of California carries eggs under hot water nozzles, brushes, and forced-air dryer. (Photo: USDA)

A second look at

WASHING EGGS

by R. C. Baker*

Many of you will remember that about ten years ago — or maybe less — the washing of eggs was a very controversial subject. Even before this some poultrymen washed their eggs — but they never dared admit it. In the middle of the 1950's washing of eggs became quite common, though frowned upon by many egg buyers; in fact, some egg buyers refused to buy washed eggs.

Egg producers themselves soon found that washing eggs was by far the easiest way to get the job done, and they refused to be discouraged. Many of us working with them decided that the wisest thing was to teach poultrymen to do the washing job right — we knew they were going to do it anyway, and we had evidence to show that proper washing was not detrimental.

Recent Scare

I don't feel that the adverse publicity received by the poultry industry due to the recent "Salmonella" scare was justified. What it has meant to me — and I believe to many other people — is that we had better take a second look at washing eggs.

Practically all foods can be infected with bacteria, including Salmonella. People themselves harbor it, can be carriers of the disease, and can transmit it to others. It is also known that dogs and cats are carriers, and they can infect humans.

The reason eggs took the brunt of the publicity in this case was because it is known that this particular bacteria (Salmonella derby) can be transmitted from the chicken through the egg. Twenty years ago Salmonella pullorum was a common disease in chickens, and we probably all ate eggs that contained this organism, but it is very rare today. Recently, several research people have broken-out eggs to see if they could isolate such species as Salmonella derby, with negative results. This means that the chance of disease-causing types of Salmonella being transmitted through the egg is quite rare.

Many species of Salmonella, however, can be found in the digestive tract of the chicken and in chicken feces, and thus can easily get on the shells of eggs. And it is possible for bacteria to get through the shell and shell membranes into the egg if eggs are improperly handled. Our main problem, therefore, does not come from the transmission of this bacteria in the newly-laid egg, but rather from infection after the eggs are laid. It is up to us to prevent this infection.

Cooling Important

It is possible for any bacteria to get into the egg when it is first laid if the nests are excessively dirty. When the egg is laid it has a temperature of about 106°F., but it cools very rapidly. If the egg should be dropped into chicken feces containing bacteria, due to rapid cooling the bacteria can actually be sucked in. Whenever an egg is warmer than its surroundings, it tends to contract as it cools. This creates pressure enough to pull the bacteria in. Every poultryman should make sure that his nests are kept clean.

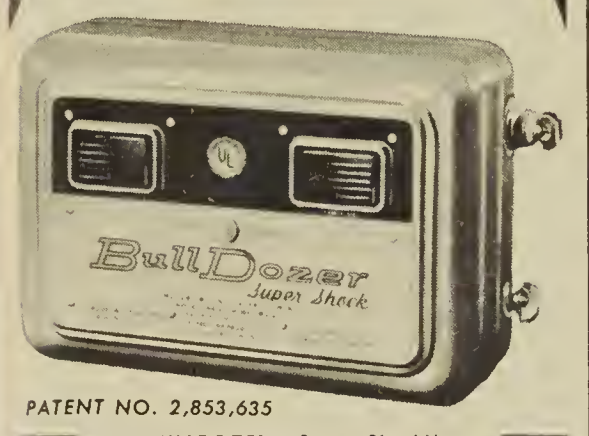
A poor washing job will also allow bacteria to enter. Eggs should be washed soon after they are gathered; this is important for two reasons. First of all, we know that there are many bacteria in the dirt on the eggs, and the sooner it is removed the better. It is also true that eggs wash much better soon after they are gathered; the longer one stores them before washing, the more difficult it is to get the dirt off.

Equally important is to dry the eggs immediately after washing, to avoid the problem of cooling water

(Continued on opposite page)

*Poultry Department, Cornell University

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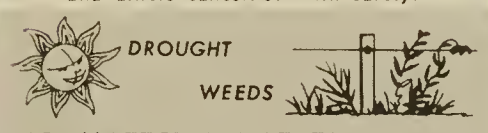


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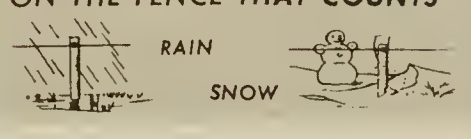
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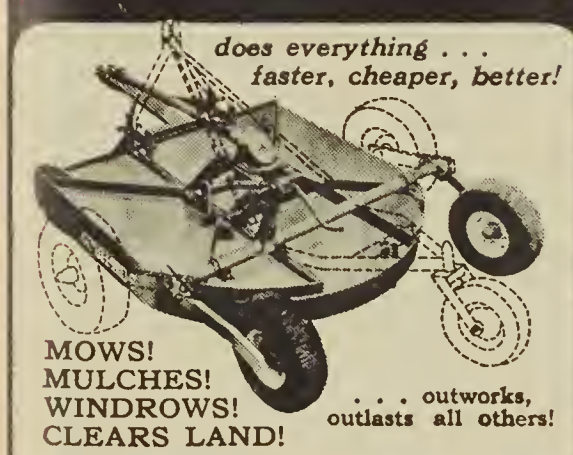
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(Continued from opposite page)

and shell contraction mentioned above.

Most sanitizer-detergents on the market today do an excellent job of washing eggs, and they reduce the bacteria count on the shell to zero. It is very important that a sanitizer-detergent be used (at recommended levels) — not just a detergent. Household detergents may do a nice job of washing, but they won't kill bacteria.

It is essential that the water temperature for washing eggs be between 120 F and 130 F when using the immersion type of egg washer. When the temperature gets much above 130°F the egg albumen could coagulate during the washing operation. If the temperature of the water gets down too low, and especially if it gets below the temperature of the egg, then bacteria can be sucked in by contraction.

Eggs should not be rinsed with clear water after washing. Some poultrymen do this, but it isn't wise. If left on the shell the sanitizer-detergent will continue to kill bacteria for many days. Rinsing loses this protection, and if the rinse water should contain bacteria (as in a case I saw recently where a poultryman was rinsing eggs with cold well water) then bacteria can easily be sucked in.

Change Water

Another important point that is overlooked sometimes is changing the wash water frequently. The changing, of course, depends on how many eggs are being washed and how dirty they are. One rule is to change the water every five baskets, but this can't apply in all cases. It is definitely known that if the water gets too dirty the sanitizer is no longer effective because of excessive organic matter. And cleaning the egg washer every day is a "must," so that the bacteria load will not build up.

Dates to Remember

February 2-5 — National Dairy Council 49th Annual Meeting, Hotel Deauville, Miami Beach, Florida.

February 4-5 — Annual Convention and Trade Show, New England Farm & Power Equipment Dealers Association, New Hampshire Highway Hotel, Concord, N. H.

February 4-6 — Farm and Home Week, Agricultural Hall, University of Delaware, Newark, Del.

February 15-23 — Future Farmers of America Week.

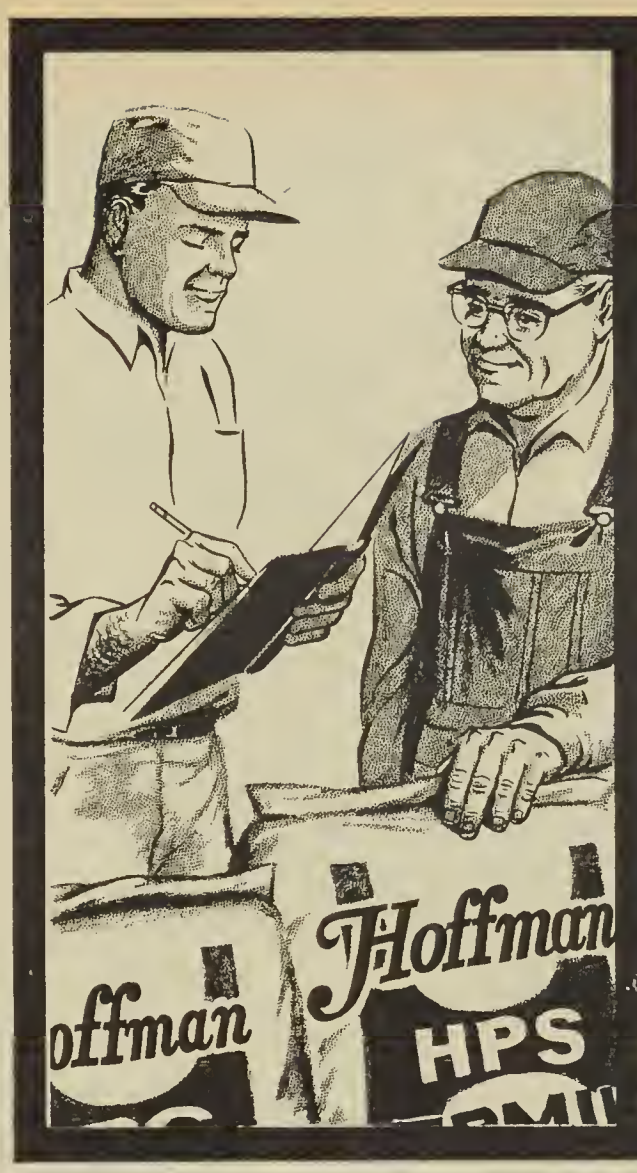
February 18-19 — Fourth Annual Cornell Potato School, Morrison Hall, Cornell University, Ithaca, N. Y.

March 4 — Statewide Snap Bean Meeting, Geneva, N.Y.

March 5 — Regional Beet Meeting, Geneva, N.Y. 10 a.m.-3:30 p.m.

March 11 — Regional Dry Bean Meeting, Geneva, N. Y.

March 12 — Regional Dry Bean Meeting, Linwood, N. Y.



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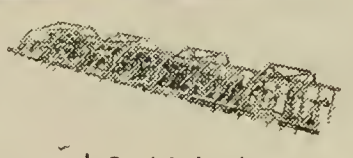


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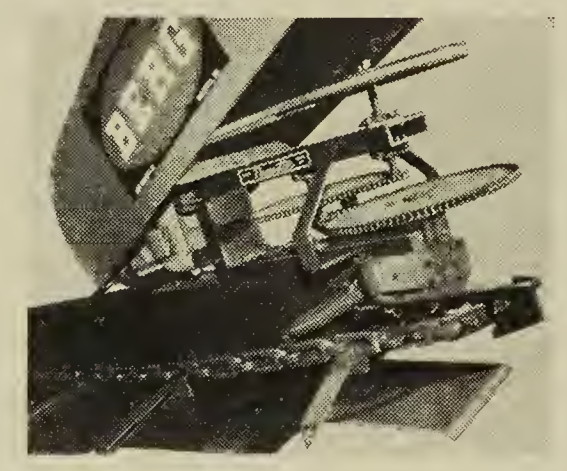
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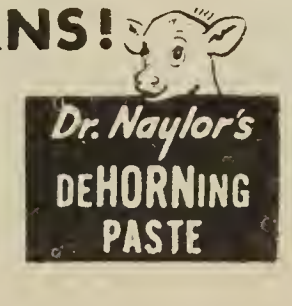
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EUROPE WILL BE NEXT

In just a few days our American Agriculturist tour group will leave for a wonderful circle tour of Florida and a glorious two-week cruise in the calm, blue waters of the Caribbean. Next will come our Holiday in Europe (May 27-June 30), which will take us to six countries — England, Holland, Germany, Denmark, Sweden, and Norway. And there is no better time to enjoy northern Europe than in the spring when every countryside is blooming.

Our travels will take us first to historic London to see some of its most famous sights — Westminister Abbey, the Tower of London, St. Paul's Cathedral, and Trafalgar Square. On a side trip to Eton and Windsor, we'll visit famed Windsor Castle and its unique St. George's Chapel where the Knights of the Garter sit.

Next, an overnight steamer will take us to Holland for sightseeing in The Hague, Holland's capital city, picturesque Amsterdam, and the unspoiled village of Zuider Zee. We then continue northward to stay one night in the port city of Bremen, Germany, before visiting Hans Christian Anderson's Fairytale Land and "wonderful, wonderful Copenhagen" in Denmark.

Scandinavia Featured

We'll spend five days in Sweden enjoying its delightful rural areas, world-famed weaving district and, of course, the bright modern capital, Stockholm, one of Europe's most fascinating cities.

Norway is the last country we visit and the grand climax of our trip. We'll see its majestic fjords, beautiful springtime flowers, quaint houses, snowcapped highlands, breathtaking scenery, and interesting people.

Send for Itinerary

We will be glad to send you a free copy of our European Tour itinerary, illustrated with pictures of many of the places we will go. It also contains a day-by-day account of everything we will do on the trip and gives the cost of the tour. Just fill out the handy coupon below and mail it today.

Alaska Tour

Our American Agriculturist 1964 Tour to Alaska will leave New York State on July 10 and arrive back home August 1.

Next month we will tell you more about this very popular summer vacation. In the meantime, just check the coupon if you would also like to receive the Alaska Tour folder.

A. James Hall
American Agriculturist
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Please send me, without obligation on my part, the following tour itineraries:

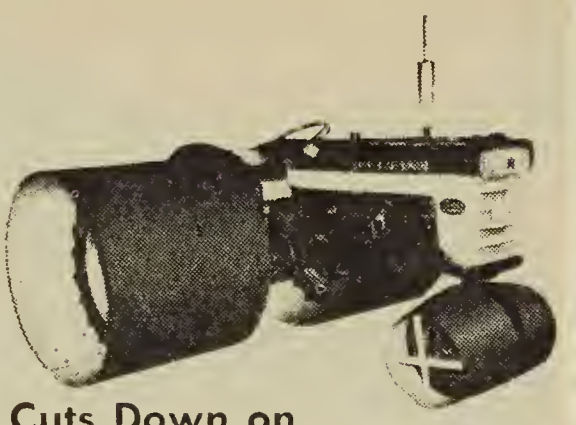
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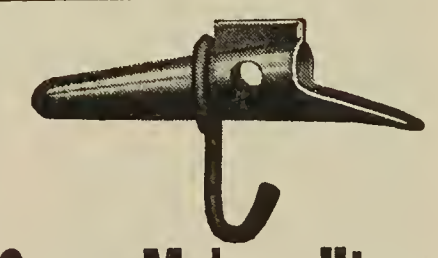
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AGRICULTURAL SOCIETY

The 132nd annual meeting of the New York State Agricultural Society was held in Albany on January 15.

The annual dinner, held in the Crystal Room of the DeWitt Clinton Hotel, featured New York State farm products. Honored were the four families designated for the Century Farm awards because they and their antecedents have occupied the same farms for more than 100 years. They are:

The Gleason Farm, Malone, Franklin County, first owned in 1827, now owned by Mr. and Mrs. Ernest S. Gleason. Mr. Gleason is a dairyman, possessing the original 205 acres which descended to him by inheritance.

The Loveless Farm, Skaneateles, Onondaga County, was first mentioned in the annual report of the Society 123 years ago. The present owners are Gaylord and Hilda Loveless. Corn for grain, wheat, oats and winter barley are of major consequence, and there is a herd of about 65 animals, mostly Jerseys. Two daughters complete the family, and the family record of service beyond the line fences is long and outstanding.

The Miller Farm, Ancramdale, dates back to 1770. It nestles among the hills of southeastern Columbia County about 7 miles due west of the point where the states of Connecticut, Massachusetts and New York have a common border.

Today the farm is under the management of Mr. and Mrs. Clifton Miller; son Harold works in partnership with his father with the fine Holstein herd — and there are four of his sons coming along to carry on the farm tradition.

The Saile Farm, first in possession of the family in 1836, is another father and son partnership. Located in Batavia, Genesee County, there are three houses on the farm, each occupied by members of the Saile family. The present owner, Walter Saile, invited his younger son, Lynford, to become a partner in 1963, and they operate the original 176 acres.

Fieldman — Russ Hurlburt, Bergen, N. Y., widely-known auctioneer, is now employed as a fieldman by Empire Livestock Marketing Cooperative. Hurlburt brings wide experience to his new post.

New Manager — A. L. Wright, Homer, N. Y., started as general manager of the American Proved Sire Service, Inc., Honeoye Falls, N. Y., January 1. In this position he will have charge of field operations for this distributorship of the American Breeders Service.

Sugar Beets — A 29,500 acre sugar beet allotment has been granted to Central New York. The Pepsi-Cola Company will begin building a $22 million refinery in the spring of 1964, plan to have it ready for processing beets by the fall of 1965. It will be the first refinery in the country designed to refine both beet and cane sugar. Farmers in eight counties — Cayuga, Onondaga, Ontario, Oswego, Seneca, Tompkins, Wayne, and Yates — will grow beets to supply the new plant.

Champion — June Collins, Malone, N. Y. was named New York State Holstein Champion Girl for 1963. June started 4-H project work with a registered Holstein calf in 1953; perhaps the most interesting achievement was when a daughter of one of her early project animals, Collins Crest Burke Juniper, was selected as Reserve Junior All-American two-year-old for 1962, and then went on to set a new national milk record, producing 23,110 pounds of milk and 759 pounds of fat.



1964 officers and directors of the New York Hereford Association. Seated, left to right: A. Burwell Price, Clarence; M. D. Lacy, Cornell; H. E. Martin, Dover Plains (retiring president); B. L. Sherwood, Appleton (newly-elected president); R. Carlton Evans, Pine City (vice-president); and Herbert Dodge, Frankfort. Standing, left to right: Merritt Howard, Forestville; Basil Parker, Hornell; Scott Traxler, Dansville; Robert Generaux, Canandaigua; Harold Smith, North Rose; and Robert Kittle, Clayton.

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- send for your copy of the gasoline tax refund record book

33.8% more farmers and truckers are using GLF diesel fuels now than ever before.

Here's why:

When a farmer has something to say about his business, we listen. That's our job.

And over the past few years, farmers have been telling us they needed a diesel fuel capable of keeping operating and maintenance costs down. Others noticed they were losing engine efficiency and power when pulling loads were varied.

Problems such as gummy injectors, rust, corrosion, smoke, soot, and cold weather freeze-ups, made the argument for a new and improved farm diesel fuel complete.

Slightly more than one year ago, research and testing gave final approval to new GLF Power Champ Diesel Fuel—in grades No. 1 and No. 2. Scientifically developed additives enabled the fuel to reduce operating and maintenance costs, increase engine efficiency and power, eliminate rust, corrosion, smoke, soot, and cold weather freeze-ups.

Is the new fuel really this good?

Ask your neighbor. Chances are, he's using it.

Here's proof: During the first nine months, Power Champ diesel fuel sales have gone up an unbelievable *33.8* percent over the same period of the year before. Operating conditions during the period of increased usage were normal and would not greatly influence the sales volume. There have been no expensive, hard sell advertising or sales campaigns to influence this statistic. It's a fact. More farmers are switching to the improved fuel because it does farm work.

Some typical comments we have been hearing lately are:

"Outperforms all previous fuels we have tried . . . it's clean . . . tractor engines don't load-up with fuel at slow speeds now."—*Lewis W. Fogg, Salem, N. J.*

"More power than before and a great reduction in smoke."—*Esher Goodale and Sons, Cortland, N. Y.*

"I've noticed a reduction in fuel usage."—*Alton Flint, trucker from Campbell, N. Y.*

If you need a diesel fuel to do farm work, write to *Demonstration, Petroleum Products and Services, Terrace Hill, Ithaca, N. Y.* We'll send a man to show you how new GLF Power Champ Diesel Fuel can give your tractor more power, higher operating efficiency, and longer life. Write today. *Cooperative GLF Exchange, Inc., Ithaca, N. Y.*

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GLF Quality

PETROLEUM PRODUCTS & SERVICES

by W. A. Dodge*

Mastitis — THE CAUSE BEHIND THE CAUSE

Back in 1958 our alert Vermont Milk Control fieldmen asked the Agricultural Extension Service, "Why do we get so much off-flavor like saltiness in our milk?" Salt "brine" flavor has for years been attributed to mastitis, or damaged udders. A careful study at milking time on a sizable number of "down the road" dairy farms gave some interesting clues — in about 70 percent of these dairies mastitis was a problem.

What Goes On?

We found some young men using the same vacuum pumps, the same ¾ inch vacuum lines, and the same old machines that Grandpa did. Perhaps their energetic young wives helped milk and were pulling the teat cups off the cows before shutting off the vacuum — this way they didn't lose any milk. We found stalls built for 800-pound Jerseys being used for 1300-pound Holsteins. Did you ever share a twin seat with a 225-pound fat person on a bus built for high school students? These bigger cows were being pinched in more places than one.

We found time-conscious dairymen using as many as five milking units per man, and feeding the cows and calves while milking. The average time the machines were left on cows was about 7 minutes. One grandpa said, "I read about folks milking cows in 3 to 4 minutes, but I can't believe it." He was waiting until the long — and I do mean long — milk tube was sucked dry (10-12 minutes).

* Extension Dairyman, University of Vermont, Burlington

Waste of Time

Many dairymen thought that preparing cows for milking was a waste of time, "just jam the teat cups on and let them suck, they'll get the milk sometime." Teat cup liners and hose connections were considered okay as long as they didn't have any visible holes through them. Vacuum regulators were a permanent fixture — never to be touched. Whitewash, flies, heifer dust, and cobwebs in these were accepted.

Something had to be done. After studying the results of the "down the road survey," it became evident that mastitis or udder damage came from three basic sources, namely:

1. The method followed in milking.
2. The operating condition of the equipment used for milking.
3. The surroundings, or care given the cows.

In July, 1959, after many hours of writing and rewriting, editing and re-editing, the Vermont Agricultural Extension Service published Circular 129, "You Can Control Mastitis." But for the excellent counsel, broad understanding, and appreciation of the magnitude of the problem by a farm-raised Extension Director, this publication would never have gone to press. Requests for copies have been filled from all 50 states, Canada, England, Puerto Rico, and Turkey; it has been reprinted four times. From its cover throughout, this publication was written for folks who milk cows.

Vermont county agents have spent many hours watching and timing individual farm milking operations; their observations have been both humorous and pathetic. We've learned to be very direct in our criticisms — no use beating around the bush. We've caused many a sore thumb by demonstrating how it feels to have teat cups pulled off with the vacuum still sucking. How do you think bossy likes having her teats pulled that hard — you'd kick too!

Mastitis Test

In 1958, Dr. Schalm and coworkers of the University of California perfected and converted the old "Whiteside Test" for white blood cells into a cow-side test, patenting it as the CMT (California Mastitis Test). Trouble was, it was limited to use by practicing veterinarians.

By passing under the table, some of us less-cultured individuals got hold of a few of these test kits. We found this test worked well on a mixture of milk drawn from all four quarters of a cow, and on farm bulk milk, as well as with samples of individual quarters.

We've also found that any ten-year-old who can get milk from a cow's teat, knows how to use a water pistol and has two eyes, can read the results with a useful degree of accuracy.

A Program

For checking the operating condition of milking machines, Vermont county agents have for three years been equipped with vacuum gauges. They have checked countless installations for vacuum level as well as vacuum stability. We've found that vacuum regulators need to be cleaned monthly, all rubber parts need to be in top condition, and the vacuum level should be as recommended by the manufacturer.

By using the California Mastitis Test on producers' bulk samples, covering nearly the entire State, the magnitude of the problem was determined. In July of 1961, our then Commissioner of Agriculture, Elmer Towne, called representatives of the Dairy Industry in conference to discuss the problem of mastitis. As a result of this conference, a Team Approach Campaign was organized in 1961, including representatives of all organizations concerned.

Herd Check

During the past year 15 average herds have been quarter-sampled and checked on a monthly basis. Results of CMT,

(Continued on Opposite Page)

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from one company to another — just as contract forms today differ between companies.

Under a base-surplus program, contracts for processing vegetables would be written on an acreage basis, with a base price to cover a base yield and an excess or surplus price for yield over the base. The base and surplus price schedules would be the same for all growers, but the base yield could differ from farm to farm as related to previous history.

As a start, base yield might be set close to the average for the area, and the base price at or slightly above the previous prices for recent years. The surplus or excess price would be established somewhere between the base price and the cost of harvest and delivery.

Information Available

Most processors have considerable information on yields and quality of product delivered by growers with whom they have contracted in the past. A method might be worked out to use this information to establish base yield levels for particular farms in the contracting area. Two items would be important in the establishment of the base yield — the yield levels in previous years and the extent of variation from year to year. Higher bases would therefore go to those growers who had been able to attain high yield levels and maintain these with little variability.

An arbitrary formula could be developed that might use the history of the previous five years to determine base yields. Growers without previous history in growing the crop for the company could use a temporary base while growing for the five-year period.

Once the system was in operation it would be possible to revise base yields annually using additional experience gained from the most recent year. Growers whose yields failed to meet their base level might have to accept a reduced base yield figure, while those who were able to continually meet the base would earn a larger one. At the same time excess production over the base would not be completely without value to the grower, and could be marketed by the processor with hopes of gaining some return from it.

Protest Possible

The establishment of different base yields among growers could cause concern and feelings of discrimination unless handled carefully. At present, though, the more successful processing firms continually screen the list of growers with whom they contract, basing their evaluation on such things as the quality of raw product delivered, the level of yield, and the uniformity of delivery per acre from year to year. Each year some growers are dropped while additional acreage is sought from others.

The establishement of a base-surplus plan by an individual company would recognize that regular predictable production is important to the company and should be reflected to the grower in terms of higher base yield levels.

(Continued from opposite page)

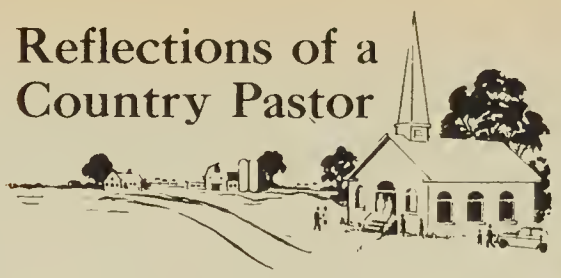
direct microscopic leucocyte (white blood cell) count, and laboratory milk culture findings have been recorded. The method followed in milking, operating condition of the milking equipment, and the care given these dairies have been carefully studied. Here's what we found:

1. The CMT has been found to be very reliable as an indicator of udder health, and it's a simple test to use.

2. The volume of air flow on the vacuum line is the major "Cause Behind the Cause" of udder damage. A minimum movement of four CFM (cubic feet of air per minute) on the vacuum line for each milking unit is a must; five CFM is even better.

These figures are as measured by the American standard; there are many flow meters in use that are graduated according to the New Zealand standard. By this latter standard the reading should be doubled — to eight or preferably ten CFM. Vacuum pump capacity as well as size and condition of vacuum lines have much to do with this flow.

Reflections of a Country Pastor



Users Or Losers?

THE PARABLE of the three stewards (Matthew 25: 15-30) has been the basis of many interpretations. One of them always impressed me:

Those stewards who used the tide of fortune or opportunity gained recognition by increased responsibility. Though capacity was different, all-out effort brought reward. Financial increase, promotion, or "authority"—as the parable puts it—all seem to indicate a law of success: "Users of Opportunity are Gainers."

Compare the steward who did nothing with his responsibility. He carefully covered, hid, and protected the talent entrusted to him. He returned it intact, unmarred, unused, keeping the protecting napkin. His master adjudged this unuse to be "misuse." He declared the users' prerogative to be increased by the amount of the loser's failure to use.

"According to your faithful effort be it unto you," is the verdict. Who can blame the result on luck? A rule of earlier days of Christian faith was, "You've done your best; leave the rest (the result) to God." In the words of Paul: "I plant, Apollos waters, but God gives the increase." As a cause and effect principle of the material as well as the spiritual realm—"Users are not Losers!"

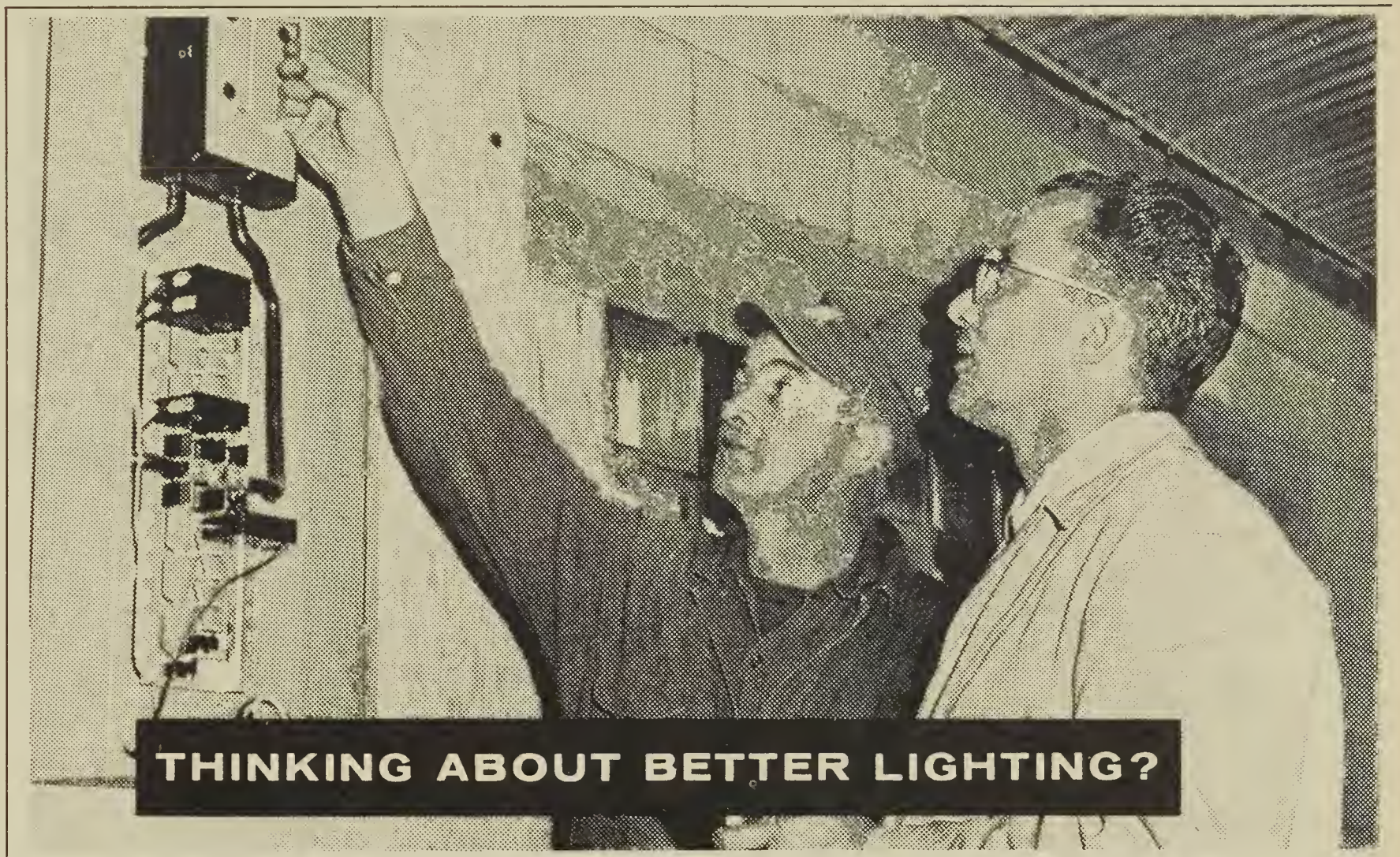
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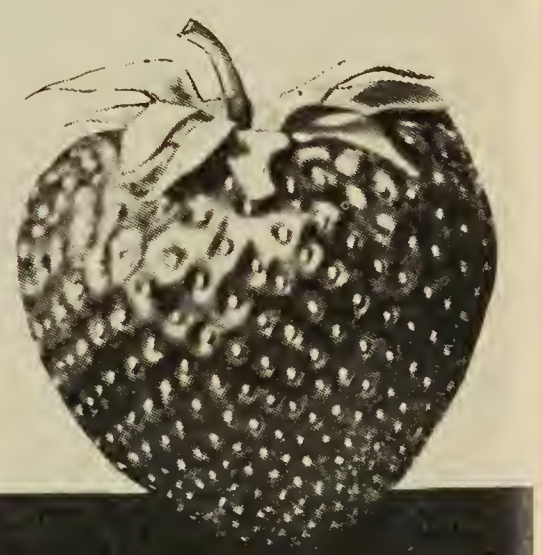
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1,000 NURSERY ITEMS — Tree Seeds (350 Varieties), Baby Evergreens, Seedlings, Trees, Shrubs, Fruit Trees, Plastic Pots, Supplies, etc. Catalog. Mellinger's, North Lima 42, Ohio.

SENSATIONAL APPLE Discoveries — Exclusive patented Starkspur Golden Delicious and famous Starkcrimson! New spur-type trees bear years earlier. Also Dwarf Trees for giant-size Apples, Peaches, Pears for backyard and orchards. Stark-Burbank Standard Fruit Trees, Roses, Shrubs. Color-Photo Catalog Free. Stark Bro's. Dept. 30324, Louisiana, Mo.

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EVERGREEN PLANTING STOCK—Highest Quality, Reasonable Prices. America's Largest Growers. Free Catalog. Musser Forests, Inc., Box 83-BC, Indiana, Pa.

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BLADES — curved 24" by 78"—¼" plate—$30.00—build your own snow plow. Rear 3 point hitch heavy duty blades—$95.00. Rotary cutters, all sizes—both pull type and three point hitch. 15 dozer crawlers—4 winch and dozer crawlers. Good selection of 75 used balers, 40 good PTO and traction driven spreaders—$50.00 and up. 100 wheel tractors—all makes, sizes and models—25 acres of equipment. Dismantling 5 acres of equipment for parts. Don Howard, Canandaigua, New York.

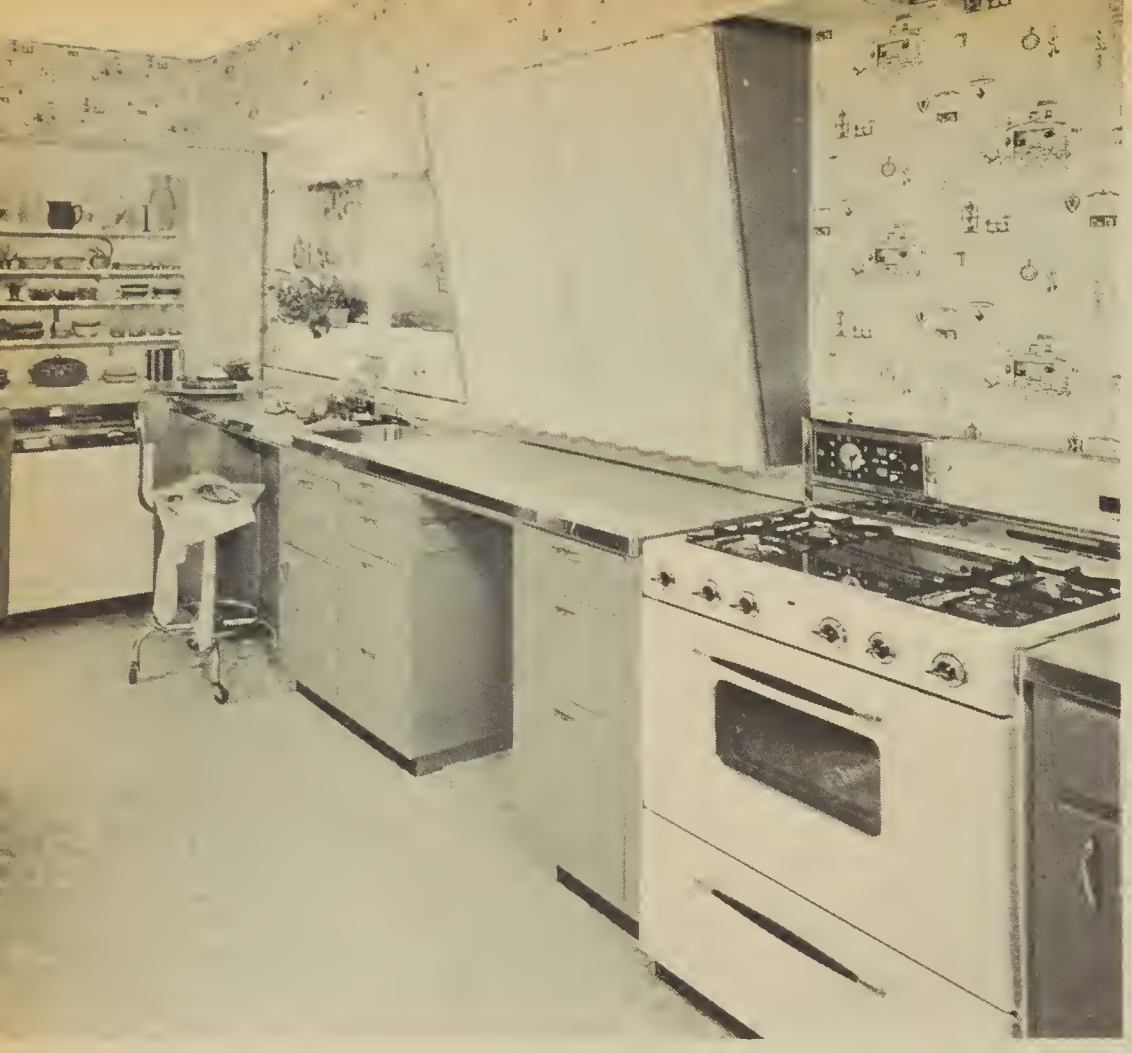
BESTLAND ROCK PICKERS—8 models in World Wide Use. Write Viel Manufacturing Company, Box 632, Billings, Montana.

1963 MERCEDES 190 DIESEL—all extras, less than 15,000 miles, $3250. Can also supply new direct from factory at about $1000. per car savings. Williamstown Irrigation Co., Williamstown, New York. Phone 315-964-2214.

LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters — extra low prices. Box S-24, Unadilla Silo Co., Unadilla, N.Y.

COMPLETE FARM MACHINERY LIQUIDATION. Holdridge Farms, Inc., Red Creek, N.Y.—Wed., February 26, 1964. Sale begins at 9:30 a.m. sharp. The Complete Dispersal of all the machinery on this large modern potato and cash crop operation, including 14 tractors; complete irrigation equipment including Chrysler pump, 2000' of 6" pipe and 3000' of 4" pipe and all attachments, and 2 small irrigation pumps 2½" and 1½"; 9 trucks, Chisholm-Ryder Bean Harvester mounted on Farmall Super "C", complete potato planting and harvesting tools including 2 J.D. 2 row automatic potato planters; 2 J.D. #30 double bed PTO diggers, Diltz-Wetzel seed cutter, grading tables, sizers, brushers, scales, baggers and conveyors. Huge quantity of small tools and supplies. Write Sale Mgr. for complete listing. Harris Wilcox, Inc., Sale Mgr. & Auctioneers, Bergen, N.Y. Phone 146. D. S. Holdridge, Pres., Holdridge Farms, Inc., Red Creek, N. Y. Phone RL 4-6526.

BULLDOZERS — Good selection—Oliver OC-3 with blade and winch—$1650 and up. 5 Oliver OC-4 crawlers, 5 model AG-6 crawlers with blades, 2 model OC-6's with blades. John Deere crawler used less than 200 hours—new condition—$1600. John Deere 420 crawler with blade—$995. Oliver OC-12 with blades—special at $5,000. New Oliver OC-9 with blade and OC-96 with loader—used only 200 hours. Oliver OC-12 new never used at a real bargain price. 75 used balers—60 used combines—100 wheel tractors, loaders-backhoes. Field choppers and forage wagons—both new and used—most all makes. Come in and see our selection of grinder mixer mills now in stock. Don Howard, Canandaigua, New York.



igure 1



Figure 2

New Energy-Saving Kitchen

by Alberta D. Shackelton

Three years ago we brought you news about the second energy saving kitchen designed and built by Housing Specialists of the U. S. Department of Agriculture at the Research Center in Beltsville, Maryland. Now we want to tell you about an attractive new kitchen design, third in the series, based on further studies of how much energy homemakers need to do kitchen work, on space requirements for kitchen activities, and on kitchen storage requirements.

This newest kitchen allows a choice of three convenient arrangements for cabinets and equipment. Two of the arrangements are broken-U areas, the third an unbroken-U. Each arrangement is efficient and well suited to family use, and records of the distance walked in preparing, serving and cleanup for identical meals show very little difference.

Two persons can work comfortably at the same time in any of the three arrangements. In all three, the sink and dishwasher stand in the same position, but the placement of the range and refrigerator varies. The outstanding feature of the new kitchen (each arrangement) is the use of a slant-front, low-hung wall cabinet with graduated shelves.

The sketch on this page (Figure 3) shows one of the broken-U area plans. The dish cabinet is to the left and at a right angle to the sink center. (The dining area is partially separated from the kitchen proper by the dish storage cabinet. The corner base area under the dish cabinet has pullout shelves on the dining area side.) The mix center stands between the sink and a 30 inch, free standing range. To the right of the range, stands a 24 inch-wide counter and cabinet. The refrigerator stands across from the mix center with a 36 inch-wide counter and cabinet to its right. Illustration 1 shows the line-up of these various units.

Sink And Mix Center

The sink center (with one shallow and one deeper bowl) stands conveniently to the right and at right angles to the under-counter dishwasher, and to the left of the mix center. The shallow bowl permits the homemaker to sit comfortably while working. A hardwood cutting board, to fit this sink top, is shown over the bowl in Figure 1. It is stored under the sink in a specially designed holder that is hinged to the bottom of the base cabinet. (Figure 2). The space under the deep bowl holds a trash container with trash reaching the basket through a chute-type, hinged door. (Figure 4). The three drawers to the left in the base cabinet store various pieces of equipment and supplies, also potatoes and onions.

The mix center to the right of the sink includes a 48 inch-wide counter, a wall cabinet, and a base cabinet. Everything in this low-hung cabinet with its four adjustable shelves is stored only one deep. The narrow bottom shelf (for frequently used items) is only 4 inches above the counter. The wide top shelf, with its wire dividers, allows cake and pie pans and plastic mixing bowls to be filed vertically. Because the cabinet is hung low, items on all shelves may be reached from a sitting position. Instead of doors, the cabinet has easy-to-open, vertical, shade-type closures which slide open and shut on traverse rod tracks at top and bottom.

The base cabinet of the mix center has two banks of drawers with space between for sitting and for storing a posture chair when not in use. A pull-out board under center of the counter may be placed at any of three working heights. The top three drawers on the left hold mixing tools, saucepans, and hand mixer; the bottom one holds larger and less frequently used items. The top drawer on the right holds extra mixing tools. Two metal lined compartments with sliding tops make up the second drawer, one for 20 pounds of flour and the other for 10 pounds sugar. The deep bottom drawer holds cooky sheets, flat baking pans, and large platters.

Range Cabinet

To the right of range, this cabinet consists of a 24 inch-wide counter, a wall cabinet, and a base cabinet. The five-shelf wall cabinet stores range supplies and serving dishes. The base cabinet has a shallow drawer for potholders and a pull-out shelf for storing frying pans and griddles. Part of the top shelf is fitted with pan dividers like the top shelf of wall cabinet over mix center.

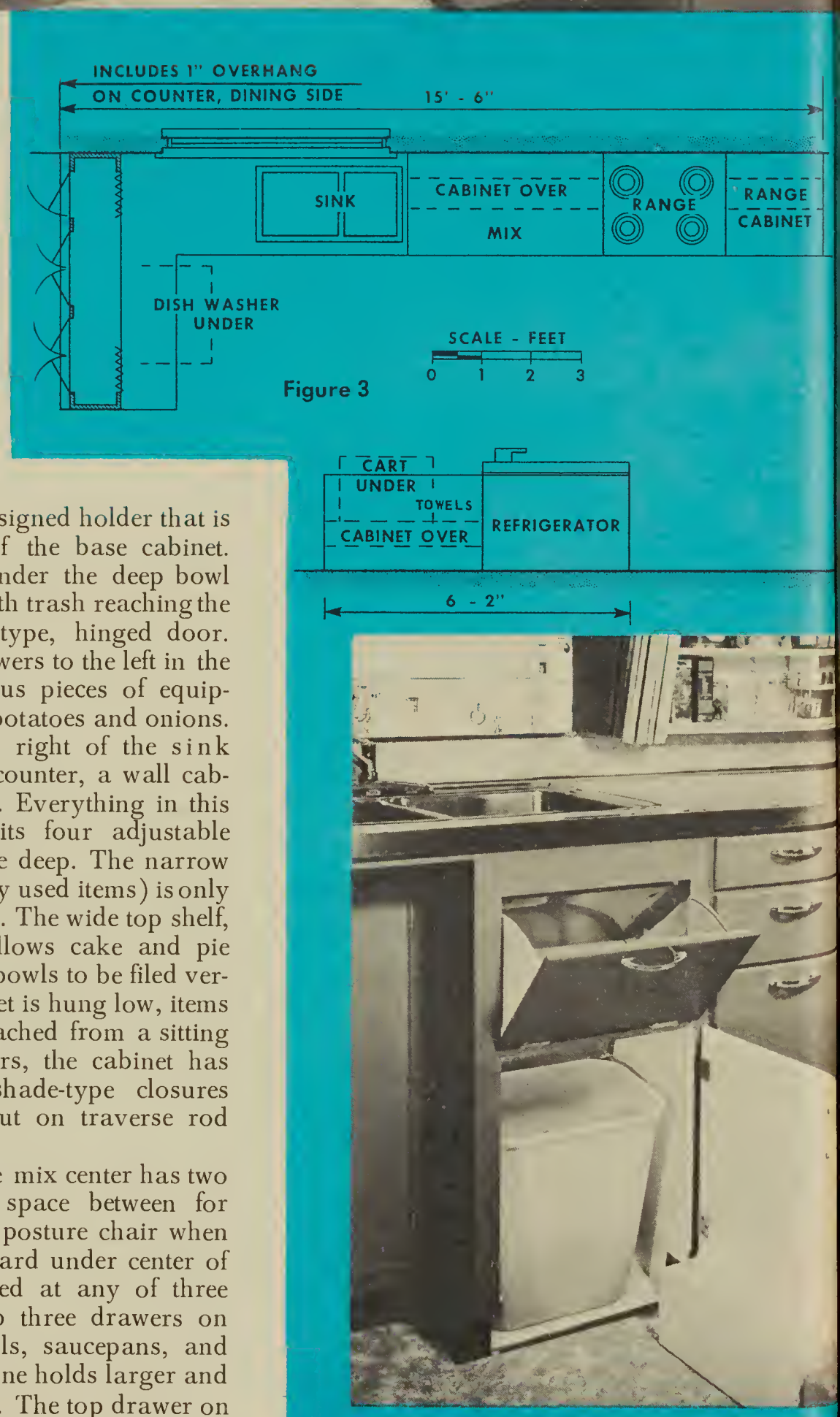


Figure 3

Figure 4

Another 4-shelf wall storage cabinet over a 36 inch-wide counter stores refrigerator and salad supplies, refrigerator dishes, salad bowls and seasonings, casseroles, and canned foods. In the sketch, this cabinet stands next to the refrigerator, across from the mix center. Underneath the cabinet is space for storing a serving cart.

(Continued on next page)

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Now! You can get the fast relief you need from nagging backache, headache and muscular aches and pains that often cause restless nights and miserable tired-out feelings. When these discomforts come on with over-exertion or stress and strain—you want relief—want it fast! Another disturbance may be mild bladder irritation following wrong food and drink—often setting up a restless uncomfortable feeling.

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"THE BASIN" IN WINTER

by Hazel B. Corliss

Our section of southern Vermont has long been known as "The Basin" because of the tree-covered hills which surround us. Here, after the bleak bareness of late fall, we always rejoice when Mother Nature again sends her favorite fairy, Snow White, to transform our Basin into a beautiful Winter Wonderland!

Jack Frost now rules the Basin, and he fixes his penetrating gaze upon us, chilling our very bones. All nature is alerted for Snow White's coming. She flies in on the wings of the north wind, and like a scheduled airplane, her approach has been announced by a ring around the moon.

Like a wayward child, Snow White's mood is unpredictable. Sometimes she comes softly and demurely, flaking her furry white eyelashes. Then again, she arrives in a tantrum of wind-swept fury and rages for days. Finally, however, the purse of her fury is spent, and she relaxes in her new landport.

Early in the season, Mother Nature allows Snow White only the most needed, basic garments. Then, like a thrifty woman during the midwinter sales, she goes on a spending spree and lavishly adorns Snow White with a luxurious gown of deep-piled velvet — a bargain indeed! The moon shines her approval of this new attire, and in our starlit Basin, all is clean, hushed and holy, like a cathedral, its chancel banked with crystal offerings. The only sound comes from the snow-buried brooks, softly saying their evening prayers. As we look and listen, our hearts feel chastened, our faith renewed.

Morning finds Snow White flaunting her new finery. She has entrusted her costly ermine wraps to the stalwart pines, as their sturdy branches bend but never break. Generously sharing her wardrobe, every peeping fence post and pasture bar is warmly capped, and even the tiniest twig is dressed like an earl!

At midday, Jack Frost leaves his icicle boots dripping from the eaves and, like a farmer in winter, takes a noontime nap by the fire. The old dog, dozing in the doorway, is startled when the boots suddenly fall! Meanwhile, our Snow White plays hide-and-seek with Father Sun, who smiles knowingly upon her melting ways.

In the late afternoon, the trees cast their shadows upon Snow White. She is superbly highlighted as the setting sun spills his golden splendor over the meadows and woodlands. Awed, we linger to look at this inspiring work of art as we do our evening chores.

Our hens go to roost, and Jack Frost again rules the zero hours when the temperature dips to two or even ten below. But as the weeks pass, even his cold heart thaws a bit under Father Sun's influence. Sadly we see Snow White's lovely gown become rain-washed and shrunken.

Then, resuming his power, Jack Frost glares icily from each tree and twig, as the sun transforms the Basin into a glittering fairyland. Every sugar maple has become crystalized, and every pine and hemlock is a shimmering Christmas tree! On the surrounding hills, the tree tops glisten in magnificence. Now, Snow White's gown has been sprinkled with diamonds. Taking our late afternoon walk with the dog, we go skimming delightedly over the polished pasture floors.

Having spent nearly 16 winters here, we know that this weather will be repeated many times before spring comes again, and that each new storm is but a stepping stone to spring.

(Continued from opposite page)



Figure 5

Dish Cabinet

The dish cabinet (Figure 5) opens into both the kitchen and dining area. It is made in two sections — a wide section to the left for china and glassware and a narrow section to the right for foods such as crackers, spreads, and ready-to-eat cereals. The top shelf is only 68 inches from the floor, allowing a comfortable reach for placing and removing lightweight articles with one hand.

The base cabinet has two shallow drawers for silver and a pull-out towel rod. Double-fold wood doors opening to the dining area permit table setting without interfering with meal preparation. Pull-out shelves, accessible only on the dining side, store table appointments and small appliances.

Leaflet Available

No detailed working drawings of this newest energy saving kitchen are available for distribution. However, you will find in the leaflet listed below, dimensioned sketches of the principal features of this kitchen, and your carpenter or cabinetmaker might find them useful if you are building a new home or up-dating your kitchen.

Send a postcard with your name and address to: Office of Information, U. S. Department of Agriculture, Washington 25, D. C., asking for a free copy of Beltsville Energy Saving Kitchen, U.S.D.A. Leaflet No. 518.



CINNA-SWIRLS



ALL-IN-ONE DOUGHNUTS AND CINNAMON BUNS... CINN-SATIONAL!!

¾ cup milk, ¼ cup sugar
1 teaspoon salt
¼ cup Planters Peanut Oil
1 package Fleischmann's Active Dry Yeast
¼ cup warm water (105°-115°F)
1 egg, 3¼ cups unsifted flour (about)
¾ cup sugar, 1 teaspoon cinnamon
Planters Peanut Oil
Confectioners' sugar glaze

Scald milk; stir in ¼ cup sugar, salt, ¼ cup oil. Cool to lukewarm. Dissolve yeast in warm water in large warm bowl. Stir in milk mixture, beaten egg, half the flour. Beat until smooth.

Stir in enough flour to form soft dough. Knead 8-10 minutes until smooth and elastic. Place in greased bowl, turning to grease top. Cover; let rise in warm, draft-free place until doubled, about 1 hour.

Combine ¾ cup sugar and cinnamon. Punch dough down and divide in half. Roll each half into 14" x 9" rectangle. Sprinkle with cinnamon-sugar mixture. Roll up tightly to form 9" rolls. Seal edges firmly.

Cut each roll into 9 equal pieces. Place on greased baking sheets, cut side up. Press down to flatten. Cover; let rise in warm draft-free place until doubled, about 30 minutes.

Deep-fry in hot oil (375°F.) for 2-3 minutes or until brown on both sides. Drain on absorbent paper. While warm, dip in confectioners' sugar glaze. Makes 18.

Fleischmann's Yeast
ANOTHER FINE PRODUCT OF STANDARD BRANDS



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4787. Smart slimming separates-shirt, pedal pushers, shorts and slacks. Printed Pattern in Half Sizes 14-1/2 - 24-1/2. Yardages in pattern. 35 cents.

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9058. Smart dress and button-on jacket for larger figures. Printed Pattern in Women's Sizes 36-48. Size 36 outfit takes 6-1/4 yards 35-inch fabric. 35 cents.

4810. Coverall apron - buttoned in back. Printed Pattern in Misses' Sizes 10-20. Medium (14-16) takes 1-7/8 yards 35-inch. 35 cents.

4644. Blouse trio to sew in gay cottons. Printed Pattern in Half Sizes 14-1/2 - 24-1/2. Yardages in pattern. 35 cents.

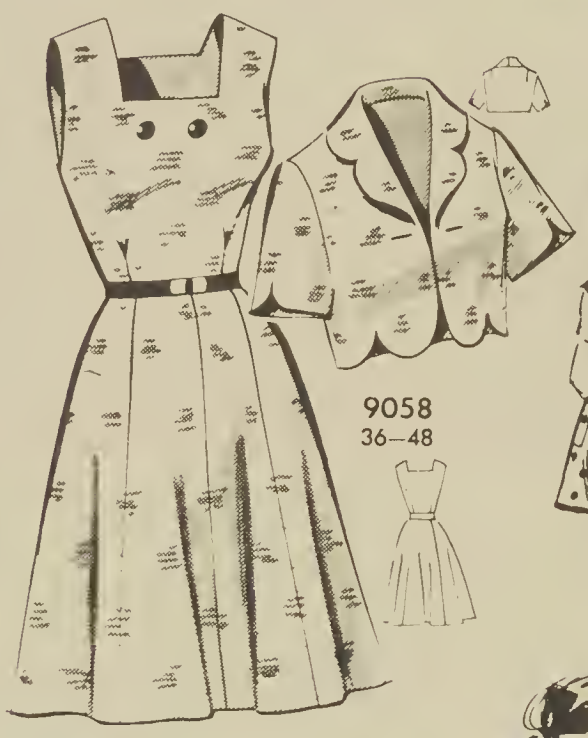
4900. Step-in dress - with raglan sleeves. Printed Pattern Misses' Sizes 12-20. Size 16 takes 3 yards 45-inch fabric. 35 cents.

















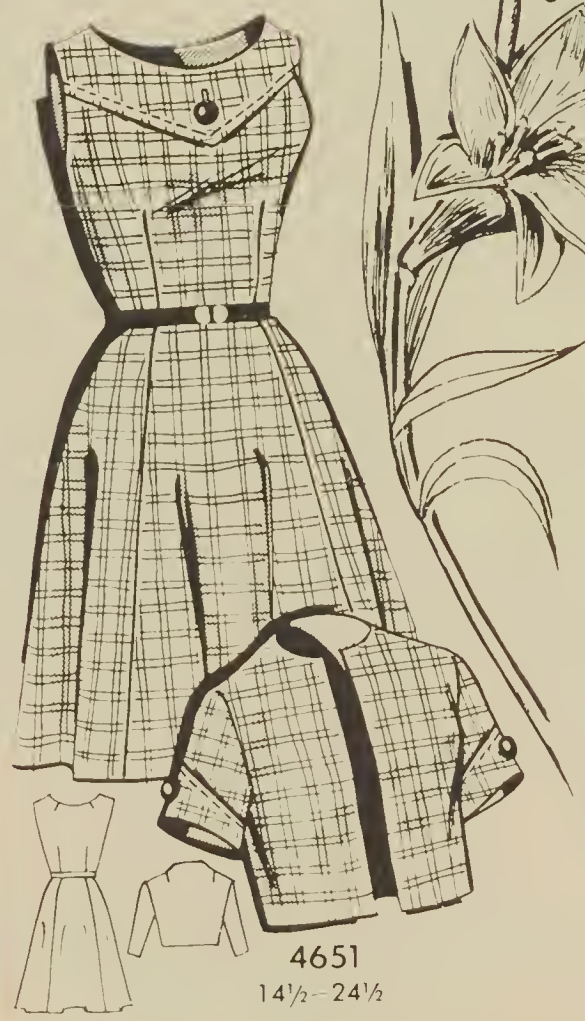














4820. Shift in shirt style. Printed Pattern Half Sizes 12-1/2-22-1/2. Size 16-1/2 takes 3-3/8 yards 35-inch fabric. 35 cents.

4624. Dress with princess lines, inverted pleats. Printed Pattern Half Sizes 14-1/2 - 24-1/2. Size 16-1/2 takes 3-5/8 yards 39-inch fabric. 35 cents.

4997. Smart basic, pleated skirt. Printed Pattern in Misses' Sizes 10-20. Size 16 takes 3-1/4 yards 45-inch fabric. 35 cents.

4930. Dress and pullover. Printed Pattern in Girls' Sizes 6, 8, 10, 12, 14. Size 10 dress only 3-7/8 yards 35-inch fabric. 35 cents.

4651. Button-trimmed dress and jacket costume. Printed Pattern in Sizes 14-1/2-24-1/2. Size 16-1/2 outfit takes 4-1/2 yards 35-inch fabric. 35 cents.

4700. Tailored jacket, two skirts. Printed Pattern in Misses' Sizes 10-20. Size 16 jacket, slim skirt, 3-3/4 yards 35-inch. 35 cents.

PATTERNS are 35¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address, pattern size and numbers clearly.

FREE PATTERN OFFER! There's a COUPON inside our Spring-Summer Catalog good for one FREE pattern of your choice. Pick your favorite style from the hundreds of design ideas shown. Fashions for all ages and occasions—separates, sheaths, costumes, coats—all the newest shapes. Send 50¢ for your Catalog TODAY.

PLANT PROPAGATION

by Nenetzin R. White

PLANTING SEEDS is the most natural way (one of the easiest, too) of reproducing plants. For flowering annuals and vegetables, it is also the most practical way, as these seeds germinate readily in practically any soil.

It is usually false economy, however, to save your own seed — purchase it from a reputable seed house. We might get popcorn mixed with regular corn (this, of course, can be seen on the ear), or cucumber seeds might be crossed with melons, gourds, squash, or pumpkins! The results can be quite astounding, and most of the time the product is worthless. With flowering annuals, colors from our own seed usually turn out to be muddy and all one color, instead of a variety of the clear-cut colors we expected.

Then, too, we don't have perfect storage facilities for the different kinds of seed, and many have special ripening requirements. Futhermore, the commercial people understand the blights, insects, and diseases that can do damage in storage. They know how to handle these things and can furnish you with disease-free stock. They also keep colors and varieties separate so the plants are true to name, color, etc. Today, many of our best annuals are hybrids, the majority being F1 Hybrids.

Annuals From Seed

To enjoy both the new annuals for 1964 and oldtime favorites, you may buy the seeds and start them inside, plant the seeds directly outdoors (after the soil is warm), or buy started seedlings. The requirements for raising annuals from seed are few, and you can have wonderful results by planting the seeds directly in the soil. If you want earlier blossoms, plant the seedlings, but be sure to check date of the last anticipated frost in your area.

Perennials and Shrubs

It is much more difficult to grow perennial flowers, shrubs, evergreens, and other trees from seed. Many seeds have built-in germination inhibitors which must be removed by physical or chemical means. Some require special stratification; some prefer nature's alternate freezing and thawing in the presence of moisture, while others would be killed by this same process. These are just a few reasons for buying plants rather than trying to grow them yourself.

For large plantings, we often use seedlings. I am thinking of reforestations or large scale background plantings. Transplanted seedlings are usually strong and healthy and worth the little extra they cost. They have a heavier root system, and survival is much more likely. Each transplanting increases the fiber root system of a plant, so the more it has been transplanted, the better its ability to be moved again. Often in advertisements you will see the letter "S" after a plant. This indicates a seedling. The letter "T" indicates, of course, a transplant, and if you found "TTT" after a listing, it would mean the plant had been transplanted three times.

In the reproduction of ornamental plants, we resort to cuttings, layering, grafts, or buds — as well as seeds. The reason for this is that we want each plant to be exactly like the parent plant. It's true that with carefully controlled and isolated parents we could probably get viable seed, but the requirements for germination of some seeds are extremely difficult. Did you know, for instance, that the seeds of some plants have a mysterious and wonderful "triggering" system that only allows a certain percentage of the seeds to germinate in any one year? Thus you might get a one-fifth germination each year for five years. This, of course, is nature's way of protection from adverse years of drought and from fires or poor growing conditions.

Cuttings, Grafts, Budding

Cuttings are simply pieces of a plant. In general, we have two types — "Softwoods," taken during the summer or growing season and "Hardwoods," taken when the plant has ceased to grow and is dormant. Cuttings will reproduce the source plant in all ways — color, habit of growth, fruiting, and such. This method of propagation, since you can start with a piece of your plant from 3 to 10 inches in length, obviously gives you quite an edge over using seeds.

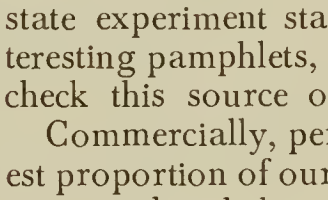
The art of cutting-propagation is a fascinating one. Since each type of plant has specific and quite definite requirements, however, I'd suggest if you are interested that you get one of the many fine books on plant propagation available at your library. Also, many of our state experiment stations have interesting pamphlets, and you could check this source of information.

Commercially, perhaps the largest proportion of our nursery stock is reproduced by cuttings. Such evergreens as arborvitae, yews, and junipers, and most of our ornamental shrubs are grown from cuttings.

Occasionally a plant does better on a different root (must be in the same family), or perhaps it can be produced faster if put on a different root-stock. At any rate, this is done on many plants and called "budding" or "grafting." Into this group fall most roses, apples, other fruits, and new, rare introductions.

VALENTINE

by Inez G. Gridley



Carved with a pen knife on a gray beech bole
Two names and hearts entwined for all to see -
The boy and girl are strangers now. Go read
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FREE OF EXTRA COST

Pre-season orders before April 1st get bonus #3 size Tuberose (U.S.A. grown). Single Mex. Var. blooms with fragrant waxy white flowers this summer on stems up to 3½ ft. tall.

These gorgeous CUSHION MUMS will be delivered this spring at half our catalog price in order to get new customers. Any spring planted Cushion Mum not producing a large number of blooms the fall after planting replaced free! Each plant normally develops to bushel-basket size when mature . . . covered with myriads of dazzling flowers, each flower 1 to 2 inches diameter . . . a giant ball of color. Hardy, assorted colors . . . red, yellow, bronze, pink, white, etc. as available. You get Chrysanthemum Root divisions from nursery grown proven blooming stock. Root and top growth may be already started when shipped this spring. If not satisfied on delivery at spring planting time return within 10 days for purchase price refund. Order now for spring delivery. Mail coupon before April 1st for Tuberose Bonus at no extra cost.

MICHIGAN BULB CO. Dept. 1400, Grand Rapids, Mich. 49502

NAME_____

ADDRESS_____

CITY_____ STATE_____ ZIP_____

☐ 10 Cushion Mums $1
☐ 30 Cushion Mums $2.50
☐ Send C.O.D. plus postage
☐ Cash enclosed. (Add 35c and we ship postpaid.)
☐ Order Mailed By April 1st. Include Tuberose Tuber Bonus.

ROBSON QUALITY SENECA SEEDS





HYBRID SUMMER SQUASH

SENECA PROLIFIC (yellow)

Heavy bearer—top flavor ideal for home or market

SENECA ZUCCHINI (dark green)

Exceptional yield—solid—savory—market favorite

FREE 1964 Catalog

ROBSON QUALITY SEEDS, INC.
Box 624 Hall, New York



GOLD STAR HYBRID MELON

HARRIS SEEDS

GOLD STAR WILL DELIGHT YOU!

It's a joy to eat, and its hybrid vigor adds earliness, heavy yields and a long bearing season too. Thick orange flesh of wonderful flavor and texture. Available **only** from Harris Seeds.

SEND FOR FREE CATALOG

If you grow for market, ask for our Market Gardeners' and Florists' Catalog.

JOSEPH HARRIS CO., INC.
22 Moreton Farm Rochester, N. Y. 14624

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in *suppository* or *ointment form* under the name *Preparation H®*. At all drug counters.



ED EASTMAN'S PAGE

NO DAIRYING FOR HIM!

One of the best parts of my job as a teacher of agriculture, a county agent, and for many years as a farm editor and writer is the opportunity I have had to visit hundreds of farms and farm homes. Not only have these visits given me the privilege of making many personal friends, but they have helped me to see firsthand just how farmers and their wives do their work, and whether or not they get some happiness in doing it.

One such call was at the home of Mr. and Mrs. George H. Hopkins on Hayts Road, near Ithaca, N. Y., who operate a large farm of 260 acres, of which 200 are tillable. It is mostly of a gravelly, loamy soil, underdrained with tile.

The Hopkins operate a herd of 125 Aberdeen Angus beef cattle and a flock of about 30 sheep. I don't think there's a dairy cow on the place.

Mr. Hopkins demonstrates a belief I have had for some time. Under the right conditions, a farmer in these northeastern states can now make a good living without being tied to the tail of a dairy cow 365 days in the year — and without being subjected to the rules and regulations and other problems that dairymen have to contend with now.

Corn and Hay

There have never been any dairy stables on the Hopkins' farm, just shelter sheds under which the cattle can keep out of the storms. All the income is from the cattle and the sheep. Something like 15 acres of wheat are grown, along with other crops, for feeding purposes. The main reliance is on corn and legume hay, mostly alfalfa and red clover, sown half and half.

While I was there, there were 36 acres of early-maturing corn, heavily eared, just ready to go into the silo, the long rows contrasting with the green rich pasture alongside, reminding me again that corn is King in America.

Except for a little day help Mr. Hopkins carries his whole operation alone. I never get over being amazed at what one man can do now with modern farm equipment. I looked at that big field of corn all ready to go into the silo, and remembered the old days on the home farm. To get our five or six acres of corn into the silo it took the work of Father, an older brother and myself for several weeks, because of changing work with the neighbors.

With a little laugh, Mr. Hopkins said he wasn't worried about the job at all; that as a matter of fact he would not expect to have to work hard to fill his silos. He also said that his beef cattle and sheep don't tie Mrs. Hopkins and himself so close to the farm as do dairy cows. They can get away for short vacations quite occasionally.

Mr. Hopkins keeps two good bulls and raises his own replacements. When his cattle are ready for market, he sells them to the Empire Livestock Marketing Cooperative — and he doesn't even have to deliver the stock. The Cooperative picks them up at the farm. He is well satisfied with the good job they do.

Some Problems

Of course, there are some problems on the Hopkins' farm. None of us can get through this life without problems, no matter what we do. Dairymen are fortunate in getting their pay regularly every month; in a beef cattle operation, the money comes in just once or twice a year, so you are flush for a while. Then, unless, you budget carefully and use good credit practices, you may be hard up for months.

Whenever I make a farm visit, I always ask both the farmer and his wife if, given the opportunity, they would do it all over again. Both George and Miriam Hopkins answered the question with an emphatic YES. He did point out what is now so true in all types of farming that it is more difficult for a young couple to get started these days because so much capital is needed, but he is sure, and so am I, that it still can be done.

Appearance Counts

I used to ride and sometimes make farm calls with my friend, the late Dr. Carl E. Ladd, former Dean of the New York State College of Agriculture. Carl used to say that one could tell a well-adjusted, happy farm family by the appearance of their place. If they liked farming and got some real living out of it in addition to the hard work, then their farmstead showed it. The equipment would be taken care of after use, and there would be no trash around. There would be well-built buildings, a nice green lawn, and flowers.

The Hopkins' homestead and family meet all these requirements. Their lovely Knollview Farm is one of the most beautiful around Ithaca, and the Hopkins themselves are as gracious and friendly folks as one would wish to meet.

THE MIRACLE AHEAD

About this time of year it is fun to leaf over the seed catalogs and order the vegetable and flower seeds that will grow and bloom in your gardens and on the farms this year.

Looking at the fields, now covered with ice and snow, it is hard to realize how they will change, and how beautiful they will be in a few months.

Springtime — now not far away — is truly a miracle of God's promise and our hope of the Great Resurrection that will come some time!

HOW DO YOU SCORE?

Allowing a zero or 10 points on each of the following, check yourself on your health habits. Ninety percent is excellent; if not above 75 percent, you are on dangerous ground.

Cut this out and post it in a prominent place to use as your health guide for 1964:

I will make every effort to give myself sufficient rest and sleep.

I will control my diet and not over-indulge in food or drink.

I will exercise moderately every day, preferably in the fresh air.

I shall remember to stand tall, sit tall, and be tall, to encourage proper physical posture and spiritual wellbeing.

I shall clean my teeth every day, and visit my dentist regularly.

I shall avoid close contact with people who are sneezing or coughing, thereby protecting myself from colds; and when I have a cold I will protect others.

I shall wear suitable clothing for each season.

I shall avoid worry and emotional turmoil.

I shall set an example of healthful living for others, particularly children.

I shall get regular physical examinations.

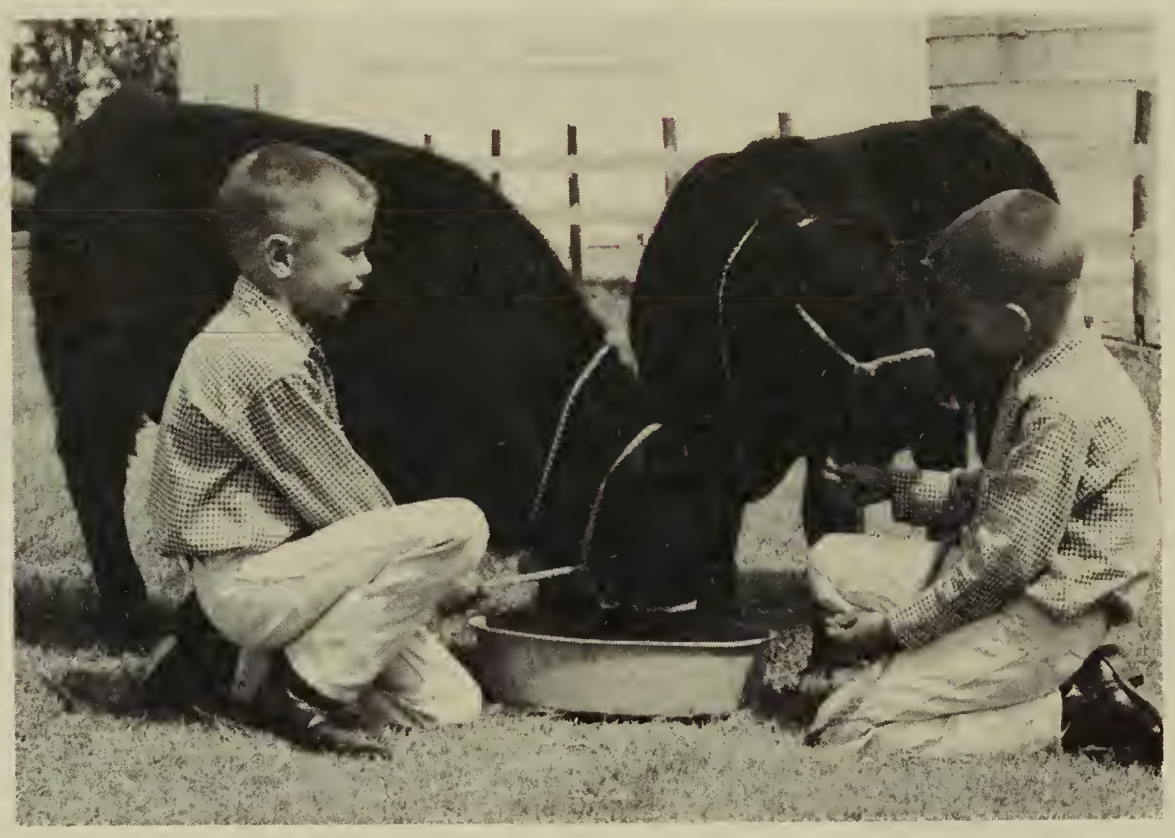
"WE JUST LOVE YOUR NEW BOOK"

At this writing, over 2,000 American Agriculturist readers have bought Mr. Eastman's new book — Journey To Day Before Yesterday. Letters are pouring in filled with enthusiastic comments like the title to this piece, and like the one following:

"There are chapters and parts of other chapters that to my mind rival Huckleberry Finn. In essence the book could be described as the Huckleberry Finn of the Northeast. The autobiographical parts are like an interesting and fast-moving novel. The book stays bright for me from start to finish, and sparkles in many spots with chuckles and laughs."

If you want to escape for a while from all the pressures and turmoil of our complicated times, or if you want to know what life was like when Grandpa and Grandma were young and gay, journey with your friend Ed Eastman in his wonderful new Journey To Day Before Yesterday.

If interested in obtaining one or more copies, send check or money order for $5.95 for each copy to American Agriculturist, Savings Bank Building, Ithaca, N. Y. — M.E.R.



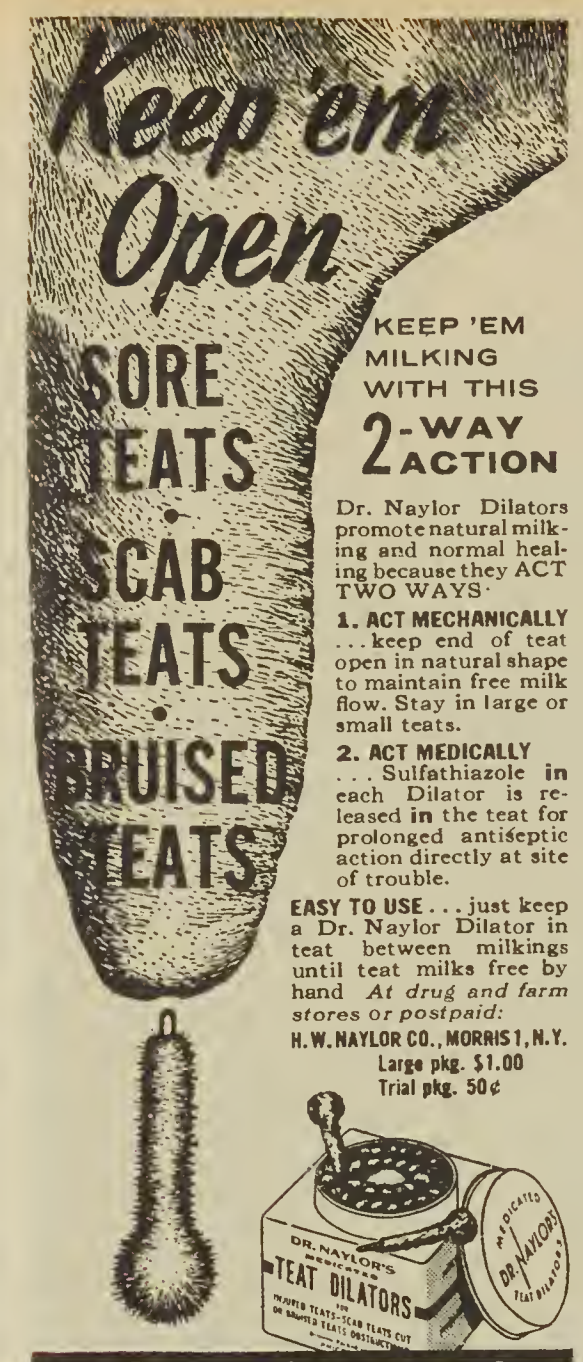
These happy twin boys with their twin black Angus heifers prove once again that the farm is a natural and wonderful place on which to raise children. The story on this page is one proof that beef cattle can be made to pay on eastern farms.

EASTMAN'S CHESTNUT

It's a real art for the chairman of a meeting properly to introduce a main speaker. He needs to be careful not to make a speech himself, not to praise the speaker too highly (thus leading the audience to expect too much). Yet something has to be said to arouse the interest of the audience.

In the course of a good part of a lifetime in giving talks I have had many different kinds of introductions — one or two of them not quite so bad as the following, but conveying the same general idea:

"Feller Citizens," said the chairman, "this here is the substitute for our gallant and admired leader, unfortunately sick. I don't know what this gent can do (meaning me) but time was short and we had to take what we could git."



MEN PAST 40

Afflicted With Getting Up Nights Pains in Back, Hips, Legs, Nervousness, Tiredness.

Most men, if treatment is taken in time, can be successfully **Non-Surgically** treated for Glandular Inflammation. If the condition is aggravated by lack of treatment, surgery may be the only chance. The mild **Non-Surgical** treatment has proven so effective it is backed with a Lifetime Certificate of Assurance.

The Excelsior Medical Clinic has a **New Free Book**, fully illustrated, that tells how these troubles may be corrected by **Proven Non-Surgical** treatments. This book may prove of utmost importance to you. Write Today. No Obligation.

Excelsior Medical Clinic, Dept. B 1434
Excelsior Springs, Missouri

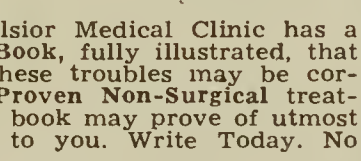
Rice and Hughes Inc.
COMPLETE HEREFORD CATTLE AND FARM MACHINERY AUCTION
SATURDAY, FEB. 22, 1964 — 10:30 A.M.

On Turnpike Rd., 4 miles southeast of Lyons, N.Y., 8 miles northeast of Thruway Exit 42, just west of the Hamlet of Maringo.

60 GRADE HEREFORD COWS DUE TO FRESHEN IN the Spring. 2 Herd Sires including Domino Intense 16 by Battle Intense 263. This is a young herd of good type, well bred beef cows. A complete line of modern farm machinery sells at 10:30 A.M. including 3 Ford tractors and a New Holland Speed Rower, self propelled, 1 year old. Large quantity hay and ear corn.

TERMS: Cash or Good Check Sale Day.
HARRIS WILCOX, INC., Sale Mgrs. & Auctioneers
BERGEN, N.Y. PHONE 146
RICE & HUGHES INC., Owners—Rayburn Rice

The High & Low Unloading BESTLAND HYDRAULIC
ROCK PICKERS!
PICK! LOAD! DUMP!



Tons and tons a day of small to 800 lb. rocks and never leave tractor seat—8 models in world wide use. 2000-4000 lb. hopper capacities — 16 years field proved—true contour rock picking with front caster wheels.

Write: VIEL MFG. CO., Box 632
BILLINGS, MONTANA

APPROVED CLEAN *FROM* MILKING MACHINE *THROUGH* BULK TANKS!!
Britex SANITATION PROGRAM
BRITEX CORP. *Manufacturing Chemists*
BOSTON, MASSACHUSETTS

Service Bureau

SUCKER BAIT

"Recently in the mail we have received several business liquidation notices, similar to the attached. They are just addressed to rural route box holders, and they advertise all kinds of things, singly and in case lots, at very reasonable prices.

"Are they reliable, or is this just another 'come on'?"

A few months ago we were advised that the National Better Business Bureau had issued a warning for people not to be fooled by big savings claims used by some so-called "catalog houses." They say the savings claimed are not valid because the regular price quoted is fictitious.

A number of companies, all in California, have been sending out similar notices. We understand these firms have no official status with the courts in a liquidation proceeding. They are just individuals selling merchandise.

Better Business Bureaus look upon them as bait offers to attract people to buy other items they may sell at a profit. In some cases they have found that prices or value claimed for many of the items they offer are inflated, and the "sale" prices offered no great savings. They found that one could buy the same merchandise locally at about the same price. Some of the notices offer soap, coffee and sugar at very low prices, but customers' orders are returned stamped "sold out," although the more expensive items are usually shipped.

EFFECTIVE

One of our representatives in New England has sent us the following letter:

"I recently met Mrs. L. T. 'Jennie' Fairman in Vernon, Vermont. She has been a widow since 1927, will soon be 86, and has been one of 'ours' for years.

"In 1928 Mrs. Fairman let all sixteen of her papers and periodicals expire, and then the one she found she missed most she subscribed for. Naturally, it was ours.

"Some few years ago, the area was being worked by some shady sales teams. Jennie had recently had a new Protective Service sign posted and saw its effectiveness when two men arrived at the farm, got their paraphernalia out of the car, started toward the house — saw the sign — and got back in the car!!

"Aunt Jennie tells the story with great enthusiasm. I told her I was sure you'd enjoy it."

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mrs. J. Wesley Henderson, Evons Mills... $15.00
(refund on window)
Mr. Robert Buckwolter, Wellsville 41.62
(refund on equipment)
Mr. Lelond A. Wode, Jasper 100.20
(poyment for hoy)
Mr. Edgar Dodge, Owego 1.00
(refund of evidence)
Mrs. Martho Volkens, Combrio Heights... 5.59
(refund on order)
Mr. Stanley Spencer, East Cancord 44.80
(refund on com)
Mr. Lucion D. Neff, W. Winfield 60.68
(gos tox refund)

PENNSYLVANIA

Mr. Robert E. Lent, Wysox 19.95
(refund on order)

His First Accident



An outstanding farmer in western New York, Raymond P. Hewes of Mayville, receives $1057.20 payment from local agent Leonard DeFrancisco of Falconer, N.Y.

Mr. Hewes' first accident was a bad one, breaking his right arm in three places. While freeing twine jammed up in a hay baler the machine suddenly tripped, catching and crushing his arm.

Benefits were paid from two North American policies one of which Mr. Hewes took out less than a year before the accident.

OTHER BENEFITS PAID

Norman R. Hatch, Fillmore, N.Y. $ 389.11
Injured hand in corn chopper
Gordon Summers, Killawog, N.Y. 520.00
Kicked by cow—fractured foot
Leo Bernhoft, West Valley, N.Y. 502.90
Fell from truck—injured leg
Albert Leonard, Poplar Ridge, N.Y. 1587.84
Auto acc.—injured back, ribs, head
Marcia Leonard, Poplar Ridge, N.Y. 785.75
Auto acc.—injured arms and shoulder
Mary A. Walker, Flaconer, N.Y. 439.96
Fell on wet floor—internal injuries
Francies S. Robbins, Elmira, N.Y. 220.80
Cut on milk pail—severe cut wrist
Glenn T. Foster, Smyrna, N.Y. 649.85
Auto acc.—injured back, head, shoulders
Robert A. Sorrell, Morrisonville, N.Y. 774.27
Slipped pushing wheelbarrow—injured knee
Clifford L. Royce, Hartford Mills, N.Y. .. 368.11
Cut on stove—severe cut hand
Dorothy Johnson, Delhi, N.Y. 360.00
Crushed between cows—broken ribs
Charles R. King, Jr., Chafee, N.Y. 228.28
Knocked down by cow—back injury
Mary Jane Clarke, Bergen, N.Y. 515.70
Auto acc.—injured neck, arm, shoulder
Mary Dygert, Newport, N.Y. 193.07
Cow stepped on foot—broke toe, bruises
Harold E. Bacon, Carthage, N.Y. 326.03
Coat caught in wagon & dragged—cuts & bruises
Melvin R. Klock, LaFargeville, N.Y. 256.76
Fell—fractured wrist
Marjory Allen, Lowville, N.Y. 750.61
Bumped leg & ankle on stake—severe leg injury
William Preston, Springwater, N.Y. 280.00
Fell on ice—injured hip
Sherman Judd, DeRuyter, N.Y. 393.50
Crushed by bull—broke ribs, cuts & bruises
Erwin J. Lenz, Spencerport, N.Y. 700.46
Slipped on floor—internal injuries
Harlan J. Braman, Webster, N.Y. 102.86
Fell on ice—fractured ribs
Hugh Hutchison, Amsterdam, N.Y. 662.86
Fell off combine—broke leg
Glenn Hillman, Wilson, N.Y. 153.57
Fell from sprayer—fractured ribs, cut ear
Ralph Salmon, Boonville, N.Y. 250.00
Heifer stepped on leg—fractured leg
Catherine Kitevelves, Warners, N.Y. 528.04
Slipped on ice—fractured wrist
Gertrude Royer, Canandaigua, N.Y. 221.42
Caught in press—crushing injury to finger
Fred DeBella, Warwick, N.Y. 489.14
Fell—fractured ankle
Raymond Labanowski, Pine Island, N.Y. 408.40
Putting buckets on loader—piece of steel entered eye
Clarence Preston, Albion, N.Y. 479.78
Auto acc.—cut head, fractured skull, inj. arm
Claud Wooding, Fulton, N.Y. 830.75
Crushed by cow—displaced fracture of ankle
Wm. A. Zeidner, Springfield Center, N.Y. 1245.70
Gas fumes ignited on combine—severe burns on arm
Viola Osgood, Winthrop, N.Y. 325.00
Auto acc.—concussion, inj. neck, arm & leg
James Brice, DeKalb Jct., N.Y. 188.00
Cow fell on insured—broke ankle
Mike Kodra, Dorloo, N.Y. 159.11
Sharpening fence stakes—badly cut finger
Dorothy E. Strong, Seneca Falls, N.Y. 174.29
Fell—fractured ankle
Sharon Harrington, Troupsburg, N.Y. 652.83
Swing broke—broke ankle
Joan Domaleski, Mattituck, N.Y. 1120.00
Fell downstairs—fractured arm
M. Woodrow Angell, Orient, N.Y. 535.00
Injured knee
Robert W. Keller, Riverhead, N.Y. 128.00
Struck by horse—fractured tooth
Charles Bloom, White Lake, N.Y. 159.64
Hit by car—injured hip, hand & eye
Kim Turnbull, Rossie, N.Y. 235.61
Gun wound—amputated toe
Helen Herrington, Greenwich, N.Y. 1117.14
Fell—injured hip
Arthur Moorman, Williamson, N.Y. 124.28
Auto acc.—fractured rib, injured back
Grace Boerman, Palmyra, N.Y. 105.72
Slipped on porch—fractured leg
Hyman J. Smith, Penn Yan, N.Y. 295.15
Repairing truck—injured finger & hand
LeRoy Boyce, Tioga, Pa. 585.00
Struck by car—injured leg and bruises
Gerald Orton, Wattsburg, Pa. 120.00
Stone rolled on foot—fractured leg
F. William Merritt, Uniondale, Pa. 170.71
Thrown from wagon—broke ribs, inj. wrist & elbow
Joseph A. Ursich, Waymart, Pa. 110.00
Cranking tractor—fractured arm
William Esaias, Columbia Cross Rd., Pa. 146.00
Wrestling—injured chest & back
Arling M. Zellars, Port Murray, N.J. 770.65
Fell—fractured heel & injured back
R. George Preidel, Columbus, N.J. 228.56
Tractor acc.—injured arm
Theodore Fox, Jr., Woodstown, N.J. 196.50
Auto acc.—broke teeth, cut lip
Robert A. Cappella, Chelmsford, Mass. .. 492.86
Thrown from tractor—broke hand, injured knee
Ervena Rainville, Colebrook, N.H. 260.00
Auto acc.—injured knees
William A. Humphrey, Winchester, N.H. 589.62
Auto acc.—back injury
Kenneth Wells, Winooski, Vt. 135.00
Pushed by cow—fractured rib
Roger DuBois, Middlebury, Vt. 215.00
Crushed by cow—fractured rib

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
THE NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK

Why just "get by"
with run-of-the-mill power?



Get a John Deere 35 h.p. 1010... More tractor for your money

Maybe you're in a 35 h.p. tractor rut—just getting by with run-of-the-mill power, when you could (and should) be sitting proud and pretty as the owner of a new John Deere.

Try this—your dealer will make it easy: Get on the seat of a "1010" and give it the works—a tough test of its power and features. Get the solid feel of extra weight and power reserve for big, fast work . . . the smooth handling and stability . . . the quiet satisfaction of owning *the quality* tractor in the 35 h.p. class—without paying a big premium.

Here's what you'll do: With extra "live" weight and brawny variable-speed engine, hustle tillage tools non-stop through tough soils. Upshift and downthrottle light jobs for big acreage daily on stingy fuel rations. Turn uniform, deep seedbeds automatically with Load-and-Depth Control. Make heavy tools behave—quickly, precisely—with up to three independent "live" hydraulic circuits. Work 540 and 1000 rpm tools with "live" independent PTO. Use your present tools to do the full farming job. Stay fresh with power steering and armchair seat.

Get these plus values: Put maintenance in the willing hands of your hometown dealer. He's there to stay—and he's equipped to do your service work right. He has the parts you need . . . when you need them. Use the confidential, flexible Credit Plan to own a new "1010" right now. It's adjustable to your farm operations and income.

JOHN DEERE
Department A, Moline, Illinois

Choose from The Long Green Line of John Deere Tractors.

MARCH 1964

American Agriculturist



INSIDE:

- Poultry Waste Disposal
- Grain Feeding Practices of Top Dairymen
- Doubling Yield on North Country Clays
- How to Buy a New Tractor
- New Dairy Barns



Maple Syrup Time.....



Outstanding N.Y. Grower Is 10-Year User Of Armour Vertagreen For Highest Quality Vegetables

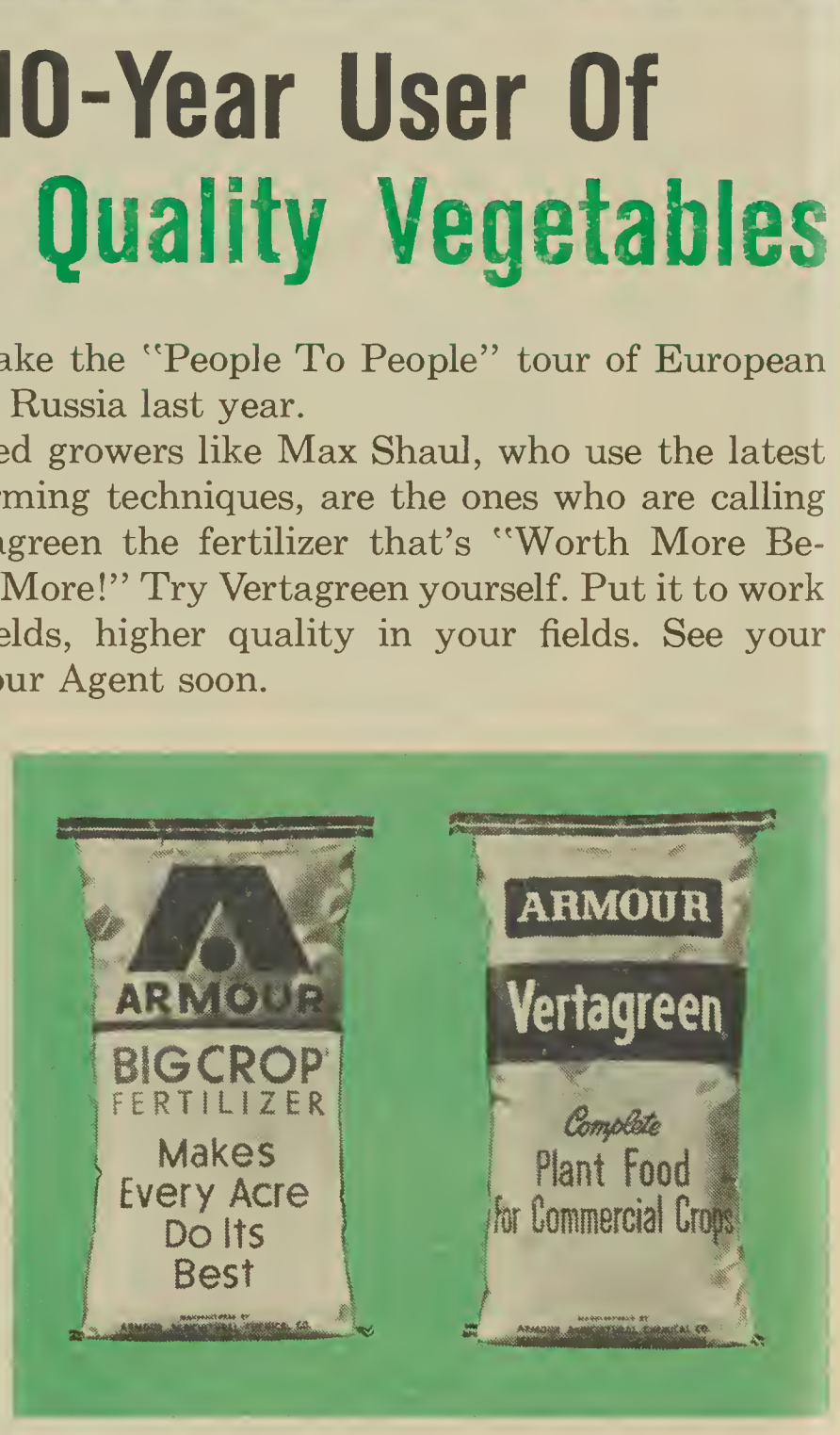
Max V. Shaul of Fultonham, N.Y., has 300 acres in vegetables and 600 in corn . . . all fertilized with Armour Vertagreen. He says: "I have used Vertagreen consistently for 10 years or more because I am quality minded and get higher than average yields by using it."

The finest tribute to the quality of Mr. Shaul's produce is that almost all of it is bought by two of the nation's leading baby food packers, who have most critical standards. "Shaul quality" goes hand-in-hand with impressive yields per acre . . . 30 tons of carrots, 145 bushels of shelled corn, 28 tons of squash and 9 tons of spinach.

Mr. Shaul has been selected as one of 14 U. S. farmers to receive the coveted 1964 Ford Motor Co.'s Farm Efficiency Award for "the ultimate in farm management efficiency." He was also one of 42 outstanding N.Y. farmers selected to make the "People To People" tour of European countries and Russia last year.

Experienced growers like Max Shaul, who use the latest in modern farming techniques, are the ones who are calling Armour Vertagreen the fertilizer that's "Worth More Because It Does More!" Try Vertagreen yourself. Put it to work for higher yields, higher quality in your fields. See your friendly Armour Agent soon.

"Worth More because it Does More!"



ARMOUR AGRICULTURAL CHEMICAL COMPANY

ATLANTA ARMOUR GEORGIA

Vertagreen, premium fertilizer / Mixed fertilizers, bagged and bulk / Ammonium Nitrate Nitrogen Solutions / Anhydrous Ammonia / Ammonium Phosphate / Triple Superphosphate Phosphate Rock / Armagard Pesticides



Firestone Field & Road Tires outpull other tires —yet cost you $20 . . . $50 . . . $70 less*!

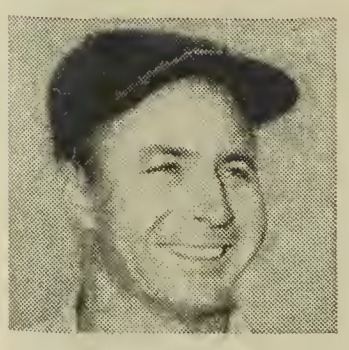
THEY'RE MADE WITH FIRESTONE'S NEW SUP-R-TUF† RUBBER FOR LONGER WEAR

Farmers all over the country have tried them and they agree—Field & Road Tractor tires outpull other replacement tractor tires on any kind of ground. And now, the addition of *Sup-R-Tuf*, Firestone's new miracle rubber, gives you even longer wear in the Field & Road tire. Only Field & Road offers you these exclusive features:

- 23° angle traction bar made with *Sup-R-Tuf* rubber stabilizes tread, ends excessive road wear;
- wide-spaced traction bars give tighter foothold for unmatched pulling power;
- new tread design insures shoulder-to-shoulder contact, traction bars take hold and *pull* on any surface.

For more details on the tire that is traction guaranteed in writing, see your nearby Firestone Dealer or Store.

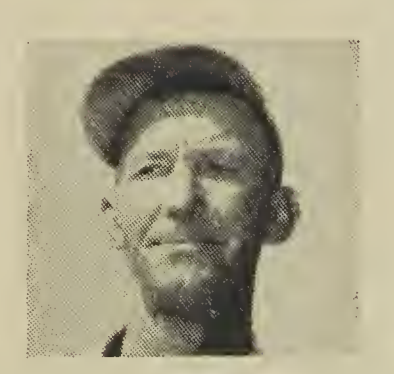
*Per single replacement tire. †Firestone T.M.



Neil Stierle, Ann Arbor, Mich.: "Field & Roads pull through when you can't go with others."



Louis Gruel, Hobart, Ind.: "Extra traction. Saved about $75 per set over another brand."



Harold Hemann, Worden, Ill.: "More traction. Tires clean good. Hold better in reverse, too."

FIRESTONE FIELD & ROAD GUARANTEE

If, within 60 days of the date of purchase, the new Field & Road tire does not outpull any other replacement rear tractor tire you've ever bought, your Firestone Dealer or Store will (1) refund within 30 days thereafter the amount paid or (2) allow the amount paid in full credit on any other Firestone rear tractor tires. (This traction guarantee does not apply to special-purpose rear tractor tires used in rice and cane farming.) The new Firestone Field & Road Tractor Tire is further guaranteed against defects in workmanship and materials for the life of the original tread. This guarantee provides for replacement of the same size and type of tire pro-rated on tread bar wear and based on Firestone prices current at time of adjustment.

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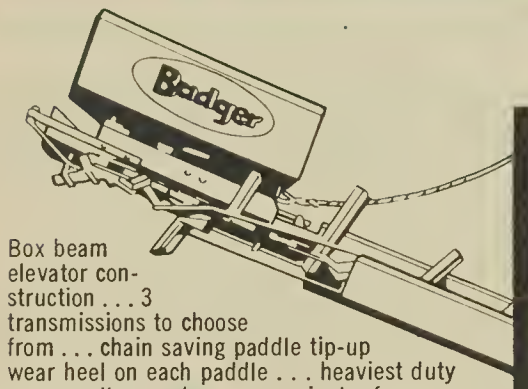
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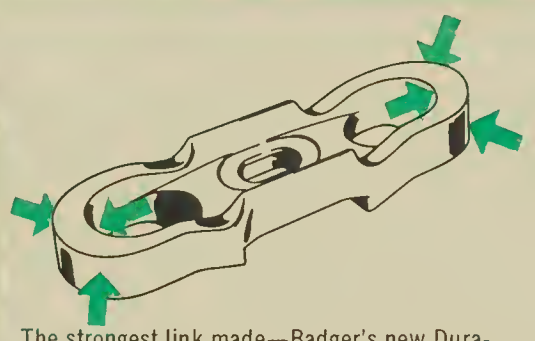
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American Agriculturist

FOR THE NORTHEAST FARMER

Volume 161 No. 3

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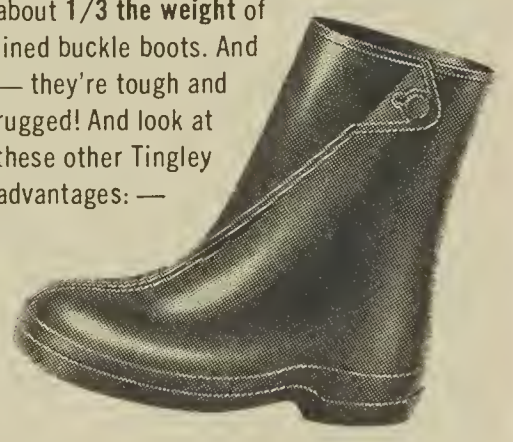
OUR COVER

That's Will Atkinson of Cavendish, Vermont, gathering from a lofty sugar maple the raw material for a heap of good eating. No experience can quite match "gathering sweetlets in a flood" on a bright March morning; no food can quite match plenty of real maple syrup on a stack of flapjacks liberally spread with butter.

TIRED

of heavy boots & arctics

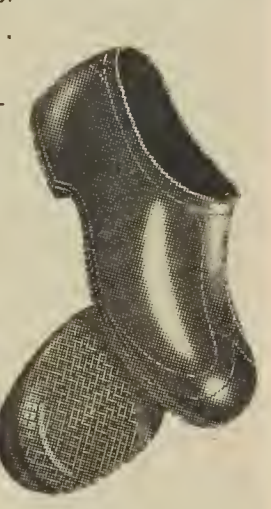
Here's relief for the Spring work load. Tingley boots are only about **1/3 the weight** of lined buckle boots. And — they're tough and rugged! And look at these other Tingley advantages: —



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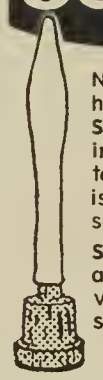


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EDITORIALS

by GORDON CONKLIN



NORTHEAST GETS THE SHAFT

On page 32 of this issue is a brief explanation of what all the shooting is about in connection with the difference in rail freight rates on corn moving to different regions. Bluntly, the Northeast is getting the shaft.

Many people in various northeastern Departments of Agriculture are convinced that, unless the situation is corrected, the region's poultry industry is doomed and the dairy business considerably disadvantaged. "Economic murder" is what folks in New England are calling the existing situation where corn goes into the Southeast and the Delmarva (Delaware, Maryland, and Virginia) poultry empires at freight rates of $4.50 to $5.50 below that in New England.

The Pennsylvania Railroad, as well as the Baltimore and Ohio, reduced rates to Delmarva in the fall of 1963 and thereby put a special squeeze on New Jersey. For instance, corn from Columbus, Ohio, now comes into Wilmington, Delaware, at a cost of 30 cents per hundred in freight, compared to the old rate of 53.5 cents. The same corn coming from Columbus into Vineland, New Jersey, carries a freight charge of 57.5 cents per hundred — which amounts to $5.50 per ton more than the now-lowered Wilmington rate.

Obviously, here is one reason why the broiler industry, already shaky in the Northeast, has recently flown the coop southward in an avalanche. Connecticut, for example, has dropped from an annual broiler output of nearly $25 million to an estimated $7 million worth in 1963. Other states in the region have had a similar trend. Egg production in the North Atlantic states is down 12 percent (14 percent in New York) from 1955. Egg output, however, has jumped 136 percent in Georgia over that same period; it is up 157 percent in Alabama.

Now it's only fair to point out that egg production also dropped 7 percent in Iowa between 1955 and 1962, dropped 22 percent in Minnesota over those same years. So it can't be all feed prices working here, because the Hawkeye and Gopher states have plenty of corn in their own back yards for feeding poultry!

Professor Cunningham of Cornell University says that the Southeast's competition with northeastern dairymen is of no importance, but also points out that the Northeast is the largest feed deficit area in the nation. A differential freight rate between regions does, he believes, adversely affect the competitive position of northeastern dairymen. He reports 1,092,000 tons of corn and corn products used for feed in the region in 1963. A reduction of $4.50 per ton in freight rates would mean a five million dollar saving to the Northeast's livestock and poultry industry — a healthy dose of vitamins to any area in the competitive race between regions!

There are some interesting cross-currents working here. Railroad executives argue that if they do lower freight rates to the Northeast, they will insist on doing away with "milling-in-transit privileges." This is an arrangement whereby feed manufacturers can ship grain to a mill, say in Central New York, then load mixed feeds back on the rails and send them to New England at the same freight charge as though it had gone straight through and not stopped off at the mill. Understandably, some feed companies have mixed emotions when they hear this privilege might be discontinued.

I think the railroads that serve the Northeast should get their rates in line with the roads serving the mid-Atlantic states and the Southeast. If northeastern agriculture continues to get a freight rate knife between the second and third ribs, the results will hurt the railroads as well as farmers.

What could be more appropriate than to remind railroad people of the story about the goose that laid the golden eggs?

HIRED HELP

As I visit farms across the Northeast, I talk with many farmers who have hired help. Over the years, I have observed that there is an almost infallible way to find out how successful any given farmer is concerning getting — and keeping — good hired men.

If a farmer introduces his hired man to visitors as an equal, much as he might his own son, I can guess right away that here's a farm where employer-employee relationships are in good shape. If, on the other hand, the owner makes it obvious that he considers his hired man to be socially inferior — or maybe even in the status of a piece of equipment like another tractor — I can write down the farmer's comments on hired help before even asking.

Sure, farmers find it difficult wage-wise to bid against industry for manpower. But there are some farmers who across the years have never lacked good hired men; there are others who couldn't keep them for any wage.

Men are not — and never will be — machines. In addition to all the other technical skills farmers need, I believe they need to know more about what really makes people tick, and the attitudes employers must have if they want to get — and keep — men who really turn out the work.

"BUT THE PATIENT DIED"

You've heard the old saw about the doctor who reported, "the operation was an unqualified success, but the patient died!" Well, sir, Orville Freeman recently rationalized to Congress along similar lines to the effect that the now-famous wheat referendum was really a mandate by farmers for a wheat program.

Sort of reminds me of the man whose girl friend greeted him at the door by throwing one pie in his face, and reaching for another. As he beat a hasty retreat, his doleful face brightened and he beamed as he consoled himself "She must still love me because she whopped me with a cherry pie — my favorite!"

A $1,000 Idea

Watching my own children — and the adults in the passing parade — I can only conclude that most of us don't learn very much from the experiences of others.

One of the most important principles of operating a profitable business is to have as many facts available as possible upon which to base major management decisions. Yet how many of us take the time and the effort to look and think about (evaluate is the $64 word) comments by those who have already gone along the path we're considering? Hundreds of letters to our Service Bureau every year attest to the fact that we humans make an awful lot of false moves because we've been misinformed — or very poorly informed.

A business management consultant once told me, "The common denominator of successful businessmen — in farming or anywhere else — is that they know where to get accurate information and then are humble enough to use it." A mighty successful farmer put it this way, "Keeping my nose to the grindstone 365 days a year didn't prove to be the most profitable way of doing things for me. Now I visit other farmers who have done something I'm considering; I talk with county agents and with company fieldmen — read magazine articles and make phone calls. You'd be surprised how often I run across a $1,000 idea!"

There are endless sayings that tell us to "look before we leap" or "better safe than sorry." The economic world in which agriculture operates puts ever-increasing emphasis on having the facts — and lots of them — before pushing the farm management "go" button.

BOY, HOOF AND WHEEL

By Catherine Thaxter

For generations past his sires have brought
Their cattle up this road; have seen the gray
Dustcloud roll up behind them in a hot
Fat period to mark the end of day.
But yesterday the road, new paved, became
An alien band of black, unyielding crust;
The cattle amble farmward in their same
Meandering daze—but now, instead of dust
Behind them roll these gleaming things, all noise
And shrill rebuke for cows and dreaming boys.

POWER OF NEGATIVE THINKING

The optimists are saying that the expected cut in federal income taxes will put more jingling stuff in your pockets and mine. I remain pessimistic about this prediction because there are school systems as well as state and local governments on all sides beset by the desire for more money. What Uncle Sam gives up, I'll bet, will be more than offset by additional tax requirements coming from other directions.

New York State is **not** on a pay-as-you-go financial footing, despite all the political claims to the contrary. Empire State taxes are soon going up sharply just as sure as fate. And New Jersey is surely going to join the 20th Century before long and end its sole reliance on real estate taxes by adopting a sales tax or income tax — or both. School districts everywhere are feeling the pressure for higher tax rates.

In 1963, the Tax Foundation reports that states across the nation revised state tax laws in a way that added $1,036,000,000 to their "take" when compared to 1962. These same changes made in 1963 will automatically increase 1964 state taxes by an estimated 11 percent over fiscal 1963.

Being against higher taxes is like being against sin — everybody agrees in general, but not on specifics. I think we need some negative thinking at times — the same kind of negative thinking we use as individuals when weighing our own bank balance against the endless number of things we want to buy. Somehow, we have to choose the best from the good.

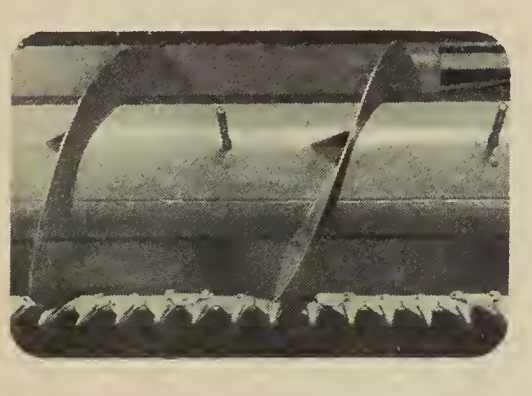
If I could wave a magic wand over those who have authority over public funds, I would wish that each one would use the same hard-nosed process in deciding how to spend tax monies as he does when running his own business or personal finances.



GOOD Hay, Quick, with Ford's new Quality HAY MAKERS

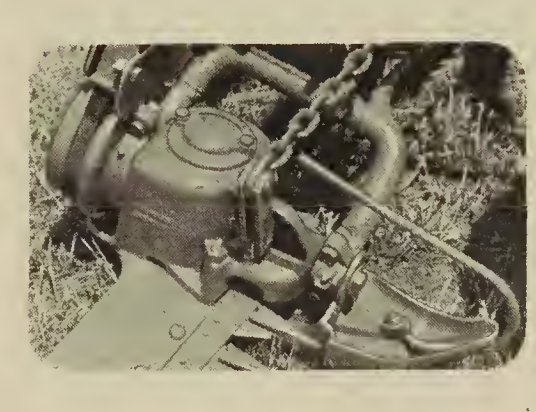


All-new 612 makes forage harvesting far more convenient. One machine, dramatically simplified, harvests all your forage—daily green-chop, haylage, and row crops. Basic cutterbar unit direct-cuts 6 feet wide. Two simple attachments slip over the sickle in minutes to handle windrows and row crops. No heavy lifting; fewer chains, drives and sprockets, yet the 612 has capability and silo-filling capacity most farms need.



New auger-sickle position eliminates reel, raddles and aprons. Retractable fingers deliver fast and sure to the feed rolls, which control length of cut. Heavy, high-speed cylinder cuts and throws . . . fills wagons fast.

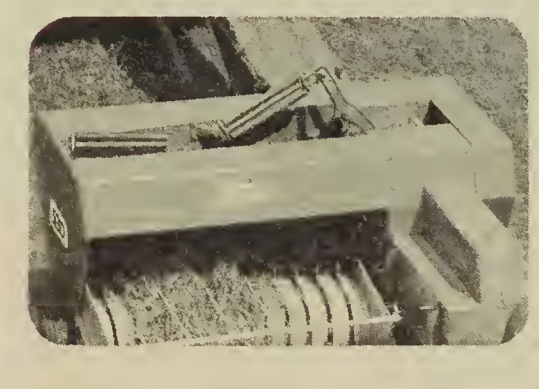
All-new 515 Mower—cuts just as fast as you want to drive, 6 or 7 acres an hour. "Revs" up without noisy pitman chatter or violent vibration . . . cuts clean, even in down hay. Ford's new sure-trip breakaway pivots where it protects entire mower. Strength in the frame, precision at the sickle, convenience from the minute you mount it . . . all yours for faster, cleaner mowing.



Simple, rugged drive is mounted low and solid on the cutterbar. It's heavy to absorb vibration . . . it's simple for more trouble-free work . . . it's built to last for years. Sealed ball and tapered bearings support the entire drive, including the knife head!



All-new Ford 530 puts you in the baler business for keeps—with 20% more capacity than you'd expect from a baler in this class. Watch it deliver 6, 7, sometimes 8 bales a minute. How can a 530 outwork those you thought were fast? Balanced-Flow feeding does it. The 530 turns those big wide windrows into firm square-cornered bales. Ties 'em tight. You finish faster, too . . . slip clutch protection keeps you going.



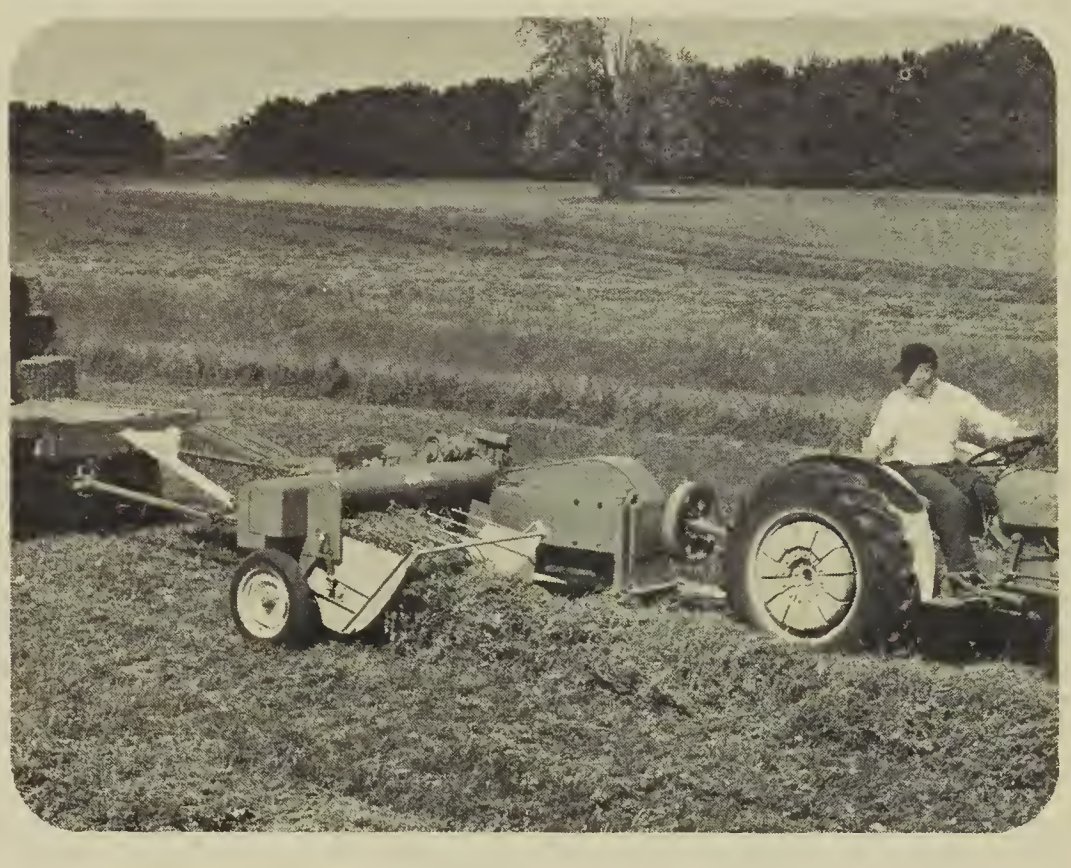
Balanced-Flow feeding gives you smooth, steady cross-feeding with synchronized dual forks; plus surer, more uniform tying with a knotter you know is dependable (a stainless steel bill hook keeps it working well for years).



503 Rake—smooth, quiet raking gently rolls hay into straight uniform windrows. Exclusive "air cushion" stripping saves nutritious leaves.



510 Hay Conditioner—your choice of a crusher or a crimper in pull-type or semi-mounted models. Hay cures 50% faster, field losses reduced up to 20%.



520 Baler—baling at its low-cost best. Compact, simple, sturdy . . . easily bales up to 8 tons per hour, twine-tied 12x16-inch bales. Operates with 2- and 3-plow tractors.

PRODUCTS OF Ford MOTOR COMPANY

FORD



This 1,500 gallon tank is used to haul liquid manure at the Richard Hodgson farm. Insert shows baffle to spread liquid manure so it doesn't "burn" plants.



Hydraulic Henhouses

by J. Robert Cudworth

CAN YOU imagine one farmer constructing and paying for a sewage system for a city of 10,000 people? In terms of tons of material to be disposed of, that's the size of the waste disposal problem facing a poultryman with 100,000 hens. As the poultry industry becomes more and more a production-line business, handling manure becomes a larger problem. Here's how four New York poultrymen are meeting the challenge:

Richard Hodgson of Newburgh, N. Y. collects manure in pits. Instead of using gravity to move it, however, he pumps it into a 1,500 gallon tank that he built to solve the mechanical handling.

He mounted a used gasoline tank on a truck, and after some experimenting found that a $200 vacuum pump could fill the tank in 15 minutes. For unloading, about 10 pounds of pressure is used to start the flow, and then the manure flows by gravity through the 3-inch discharge line onto a baffle plate — emptying time 8 to 10 minutes.

No Burning

The baffle plate works well in spreading the manure and preventing too heavy a concentration in any one spot. The distribution is good enough so that he has seen no evidence of "burning" on the ground. Ag engineers say if distribution is adequate there is seldom any burning even when used as a top-dressing on grassland or small grains.

One of Hodgson's biggest problems, however, is that he has no cropland, and his farm is surrounded by residences. Even though his poultry manure may theoretically have a commercial fertilizer value of $5 to $10 per ton, he has difficulty finding dairy or fruit farms where he can spread it.

Five Tons A Day

Hodgson has had cages for three years, so he has run into most of the problems one encounters with manure disposal. His 34,000 hens produce some five tons of manure every day.

In one two-story house he has 12,000 birds in 12" x 24" cages, five birds to a cage. This is a full stair-step arrangement with pits underneath that are 9 feet wide and 26 inches deep. He cleans these pits twice a year, adding water as needed to keep the manure at the proper consistency.

Keep It Wet

With pits you can't let the manure get dry if you are planning to pump it, he points out. When the water level is kept two or three inches over the top of the manure it does an effective job of keeping down odors, as well as maintaining the fluid consistency of material.

In another building he has birds in 12" x 16" cages, three birds to a cage. These cages are built over shallow pits, 8 inches deep and 40 inches wide. The pits must be cleaned every 2 to 2½ weeks.

When he first built his tank, Hodgson was using a diaphragm pump and it took 40 minutes to fill the tank. When manure was thick, it took even longer. This was the main reason he switched to the faster-filling vacuum pump.

Considered Lagoon

Hodgson has considered pumping manure into an outdoor lagoon, but doubts its practicality in his case because there are too many houses nearby. He is certain that outdoor lagoons must be precisely engineered if they are to be fully suitable. If they aren't, he visualizes the problems of odors and flies in warm weather, stream pollution, and other trouble with local health departments.

Central New York

Gerald Snow of Warners cleaned a 5½ months' accumulation from the deep pits in his 6,200 bird house in just 16 hours. Snow drops a false endgate right into the pit, and pulls it toward a 10" pipe and sluice at the discharge end of the pit by means of ¼" steel cable hitched to a tractor.

Once started, the liquid manure flows by gravity through the sluiceway and into a 600-gallon open top trailer. Fitted with a spinner disk, the load is spread on nearby fields and the trailer back in position in a matter of minutes.

High Ground

Snow's layer house is built on high ground, and the spreader can be driven into position right underneath the outside sluice. There are four pits, each 20 inches deep x 74 inches wide x 130 feet long. The discharge pipes join into two Y-shaped sluiceways outside the building.

Although the pits will hold nearly six months' supply of manure, Snow will probably clean about four months from the previous cleaning because it fits his work schedule better. He points out: "I spent a lot of time last winter looking over systems that I could adapt to this house. This one fitted my needs best, and took advantage of the terrain outside. I wouldn't change a thing except make the pits extend 6 inches beyond the cages at either end." He — and others — have found that some manure will drop on the floor at either end of the cage row if the pits are not a little longer than the rows of cages.

Similar System

Warner Durfee of Chittenango will also use a gravity-flow system to empty the manure from his 288' x 40' layer house. He housed his birds last July in 12 x 16 inch cages, three birds per cage. Since his pits are wider and deeper — 77 inches wide and 28 inches deep — he expects he can go 10 months before cleaning out the manure.

He is planning to use a false endgate to start manure flowing toward the discharge end. It will be pulled by an electric motor and reduction gear hookup.

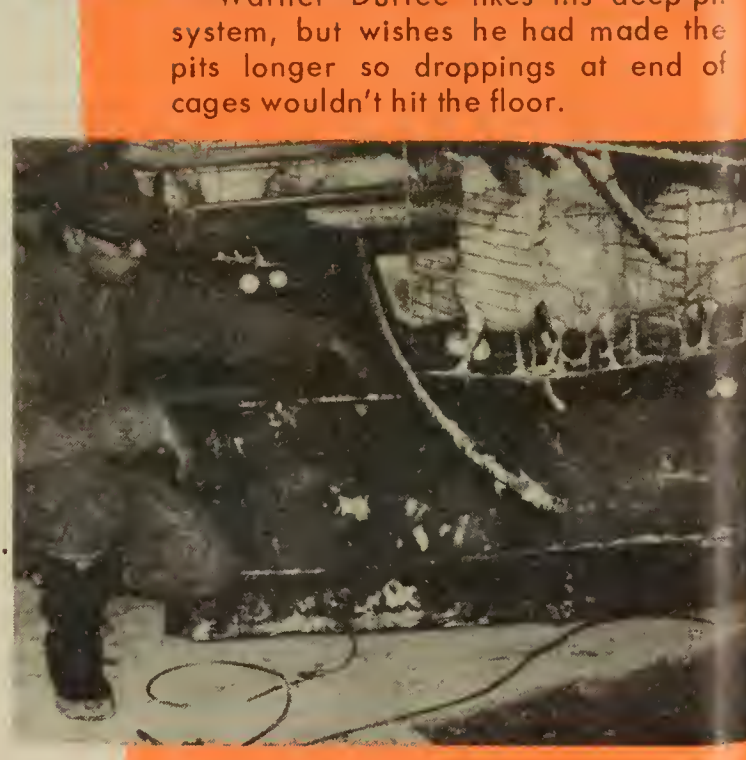
The discharge pipes are made of 10-inch galvanized pipe and they extend out beyond the end of the building. In doing it over he would use clay or other material more resistant to corrosion. Durfee has a slight dip at the rear of the building, but will probably excavate a few more feet of dirt so the spreader can drive right under the discharge pipes.

He thinks he may wall up this spreader-loading area and put a roof over it to keep it dry. And he contemplates purchasing a spreader to handle the liquid manure rather than renting one. He may want to use the manure for top-dressing, and therefore would fill the spreader whenever his crops were ready.

(Continued on page 11)



Warner Durfee likes his deep-pit system, but wishes he had made the pits longer so droppings at end of cages wouldn't hit the floor.



Gerald Snow uses this false endgate from a wagon to clean pits, pulled by the steel cable hooked to a tractor.

New York CHECKERBOARD NEWS©

...From the Purina Service Centers serving New York farmers



PURINA COW CHOW D
helps you get up to
A TON MORE MILK PER COW

Northeastern dairymen know that the most economical milk comes from their highest producers. An extra ton of milk per cow can actually *reduce* overall cost of production. Long range feeding tests at the Purina Dairy Research Center proved this point.

That's why so many New York and New England dairymen are feeding "Cow D" this winter . . . to help them feed out every last gallon of milk their cows can produce.

Fresh, high-efficiency Cow Chow D is milled every day at Purina plants in Buffalo, New York, and St. Johnsbury, Vermont. Phone your nearest Checkerboard Service Center for full details on price and delivery. We'd like to do business with you!

How long since you checked the price of Purina Laying Chow?

You may be in for a very pleasant discovery when you check Purina prices this week.

Some exciting things have happened recently to both performance and pricing of Purina Laying Chows.

For exact details on prices and delivery call your nearest Checkerboard Service Center, or drop in and see them—real soon.





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. . . PURINA GERMICIDE

Day in, day out . . . new Purina Germicide kills disease bacteria, viruses, and fungi. Purina Germicide is strong enough to knock out some of the toughest disease germs, yet does not corrode equipment or harm poultry and livestock.

Spray, dip, or rinse—any way you use Germicide, it does the job fast in hard or soft water. In solution, Germicide is odorless, non-staining, and very stable. It's non-toxic, non-irritating.

Try Purina Germicide. Comes in unbreakable plastic gallon jugs. Ask for it at the Checkerboard Service Center.

Use new Purina Germicide on:

- footpads
- poultry crates
- equipment
- walls, ceilings, floors
- pens, stalls
- livestock truck beds
- scales, overshoes

LOW COST PRODUCTION . . . the reason why more farmers feed PURINA®

"I tested John Deere's new Single Lever Power Shift for you"

Rex Gogerty, full-time Midwest farmer and after-chores journalist, reports.



I'm a gotta-be-showed sort of guy when it comes to tractor performance; like to be well exposed to an idea before I decide whether it's progress or padding. The test I gave John Deere's new Single Lever Power Shift really taught me plenty about big power in a snug harness.

When my John Deere dealer drove in with a Power Shift "4020" to demonstrate the effortless, nonstop way to plow alfalfa sod, I was waiting for him.

We farmers are really back-country engineers. We can give any new machine a pretty thorough going over . . . especially one that promises, with one shift lever, to add tilled acres while subtracting work hours.

"*Kind of a magic wand*," is the way the dealer described Single Lever Power Shift.

After plowing a couple rounds, I really began to appreciate this kind of tractor magic that's easier on engines and men. A couple rounds is all it took to learn the shift pattern and right "lever-touch."

Gumbo spots and mellow knolls always meant plenty of clutching and shifting effort. But now, with Power Shift, adjusting power and speed to the soil texture is easier than switching channels on the TV set.

Anybody who has plowed a furrow will appreciate the ground speed in each gear . . . and the way speeds are spaced: for farm use, not manufacturer's convenience.

I tried powershifting at various throttle openings and experienced no power hesitation . . . and no rodeo tosses from the seat. Matching engine rpm and plow draft made that field turn blacker faster.

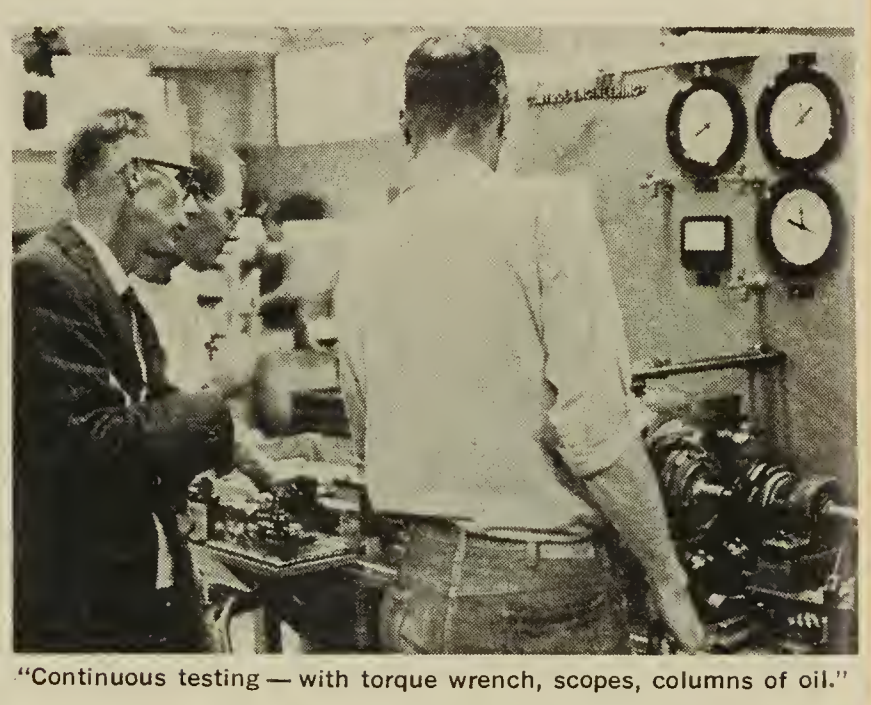
Reverse comes in four sizes, all in a straight line from neutral. Backing up for stray rocks is just a matter of selecting more than shifting.

Headlands are sometimes headaches; point rows in contoured fields can mean lots of idle time, too. But when you can pick any gear between 1 and 8 as easy as moving a throttle, headlands slip by faster than freeway on a Sunday afternoon. A real dead-furrow shrinker, this Single Lever Power Shift!

The single control lever is as close and handy as a pocket watch, so I often shifted up or back 2 or 3 gears in rapid succession. Even under these conditions, transmission response was instant yet rocking-chair smooth.

Powershifting when you pull onto a road or back into tight shed corners is sure-fired and safe, too. And that's important when there's fried chicken on the table or a three-year old waiting for her bedtime story.

As a veteran farmer, I was impressed by Power Shift; but as an amateur engineer, I was curious. So a few days later I drove to John Deere's Waterloo Tractor Works to find out some of the mechanics and planning behind this straight-through shifting. Whether a man is buying horses or horsepower, he wants to know the pedigree.



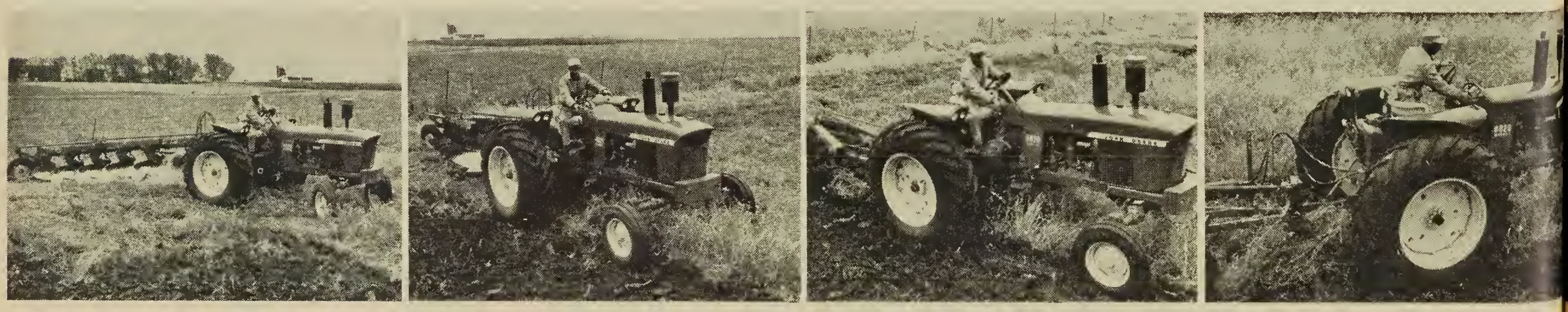
"Continuous testing — with torque wrench, scopes, columns of oil."

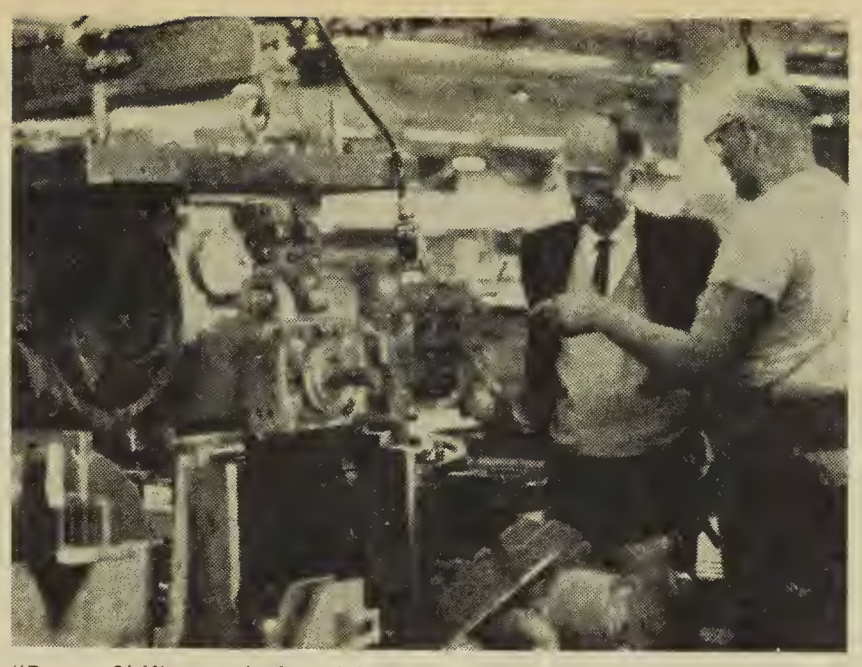
"We put more muscles into the tractor so the operator is free to control and direct the power," is the way one engineer explained Power Shift planning.

"Here comes the commercial," I thought as I began taking notes.

But instead he outlined the experimenting, the decisions, and even the psychology required to make Power Shift an efficient, durable transmission.

The experimenting figured into a big decision to use 8 forward speeds that are in a comfortable sequence, not awkwardly overlapping. "A design to suit people and work," it was pointed out. Sounded like good thinking to me. No use shifting up to gain a small fraction of a mile per hour.





"Power Shift was designed to absorb even the roughest handling."

The psychology part is more than a talking point, too. Deere hires people just to study other people . . . the machinery needs and preferences of us farmers. Tests and surveys are used to determine where the handiest place for a control is and to find out just how many levers and pedals one man can manipulate whether he's towing a wagon or loading manure. This explains the "single" in Single Lever Power Shift.

"How about durability?" I asked. From what I learned, Power Shift is pretty foolproof. (There isn't even a clutch, as such, to ride.) Power Shift is designed and built to absorb even the roughest handling . . . like last spring when you had 80 acres to plow and the neighbors were half done planting corn.

On the assembly line I watched men and machines put each piece of the Power Shift Transmission in its place with the expert care of a watchmaker. But it's more than a putting together; it's continuous testing, too . . . of the clutch pack and planetary separately . . . of the complete unit in the transmission housing . . . of the finished tractor on a treadmill at the end of the assembly line. This devotion to testing with torque wrenches, scopes, and columns of oil makes a lot of sense to a man whether he thinks like a farmer or like an engineer. It all adds up to insured progress.

I used to be an old-guard, sweat-and-shift transmission man; willing to lug the motor down through tough spots. But I've decided this new shift in farming . . . Power Shift . . . leaves more time for watching the plow . . . for doing a better job . . . and maybe for some of life's fringe benefits like fairs and fishin'.

When tractor trading time comes and your farm needs upgrading in the power department, field-test John Deere's Single Lever Power Shift. I think you'll find it's first-rate.

Remember, I don't sell tractors; I buy 'em.

Got a field condition you'd like to test against Power Shift? Your dealer will put you on your own with a "3020" or "4020" any day.

JOHN DEERE
Department A, Moline, Illinois





WHICH PROGRAM FOR YOU?

by Hugh Cosline

"It's what I have left after the bills are paid that counts," says Andrew Koval, Fort Plain, New York. "Our herd average of 10,000 to 11,000 pounds isn't impressive, but I figure that I can produce milk at less cost by making as much of it as possible on grass!"

Andrew has about fifty milkers. He also has a neighbor, Donald Klemme, who has about 100 milkers, but who also figures to keep his purchased grain bill at a minimum. They have the same aim — but their management differs. Let's see how:

Rotates Pasture

Andrew pastures his cows on rotated pastures and meadows. He feeds corn silage in the barn twice a day the year round, and feeds a maximum of 6 pounds of purchased grain per cow per day. As a result he paid out for feed only 8 percent of his receipts for milk. Quite a comparison to the more common 25 to 30 percent!

Hay is field-dried and baled, and fed twice a day.

More Fertilizer

With his larger herd, Don Klemme bought a Harvestore silo in 1961 and put up high-moisture hay (haylage). The next year he bought another to store high-moisture ear corn. As a result, Don has cut his grain bill to about one-third of what it was, also his labor cost — but has increased his cash cost for fertilizer.

Speaking of haylage, Don says: "We can put it up easier and faster. We start cutting early and finish early. The cows like it, and some have eaten as much as 90 pounds a day, but 60 pounds a day is more common.

"We bale hay, but when the haylage is gone I chop dry hay into the silo. We let water run on baled hay for about 15 minutes. Then we chop 3 loads of hay and a load of corn silage into the Harvestore, which lasts the cows about three days. This gives us a chance to use the automatic feeder tied in with the silo.

Don grows 120 acres of corn, 50 of which goes for silage. The rest is picked and stored wet in one air-tight silo. This makes up a big part of the grain the cows get.

"We have used no high-protein supplement," says Don. "Maybe we should, but production has been good."

Here's Don's feeding program:

He feeds haylage from June to January (he'd like to feed it the year round) and corn silage from January to pasture. Silage and wet corn are fed in the barn, haylage by automatic feeder, except that corn is sometimes added to the haylage.

The experiences of these two men differ radically from those dairymen who have stepped up grain feeding drastically. I have asked many if they find heavy feeding profitable. A few have some questions, but most answer "Yes."

Management Does It

When all is said and done, I figure that management is something that every man has to figure out for himself; what is meat for one man may be poison for another. Anyway, it seems to me worth the time of any dairyman to consider ways of cutting feed costs per cwt. of milk. Top-quality roughage, adequately stored, and cut early for increased consumption, surely is in the picture.

As I travel the Northeast, I see more and more corn. Yields per acre are going up; thirty tons of silage per acre is not uncommon, and a yield of 200 bushels of corn is by no means impossible.

But compared to the dairyman who buys little feed is the man with limited, high-priced land who is toying with the idea of buying ALL his feed — roughage and grain — and concentrating on the production of milk.

Probably somewhere between the two extremes is the program that will be most profitable for you. Hunt for it! I sincerely hope you find it!

Marriage is an institution that teaches a man regularity, frugality, temperance, forbearance and many other splendid virtues he wouldn't need if he stayed single.

Hydraulic henhouses
(Continued from page 8)

Louis Dunckel of Oxford recently added two buildings to his poultry setup, each 60' x 400', which boosted his laying flock by 80,000 birds. Colony cages are suspended over large lagoons (one in each building) that will contain five feet of water. Lou plans to clean them by means of pumps; he has plenty of land on a sizable dairy farm he owns to spread the manure.

All in all, it looks as though hydraulic handling of poultry waste disposal is coming into its own. It makes a lot of sense, too, because a hose or pipe is a simple way to move anything that can be pumped.



Lou Dunckel recently completed a pole structure in which cages are suspended over large lagoons.



FAMILY GOALS

I'm writing concerning your editorial about young working mothers.

A person who truly enjoys her church and social activities and really cares for and about the people she is helping does not want any monetary compensation.

Is she really so unpaid? If she is giving of herself willingly and unselfishly to help people or a cause worthy of her effort and time, is not her self-satisfaction a greater reward than a new boat?

The desire to have new and better things is in every one of us. Yet, do they make us better people if we acquire them? The difference between the "working mom" and the "Sunday school mom" is great indeed. The first is working for a material satisfaction for herself and/or her family. The other is giving a part of herself with no desire for anything for herself. Both are, I think, prompted by needs. The first, by a need to have; the second, by a need to give.

It is not my place to condemn or exalt either one. I will only say that most of the activities you mentioned were started by people who wanted to do for and give to others. We have not yet come to the time when a person should be paid to do something God has asked of him.

Are we so very money conscious that we have lost sight of the truly important gifts of our Creator? — Teresa VanWagner, Brimfield, Mass.

CASE AGAINST WORK

"The Case Against Work" editorial in a recent issue was very interesting. At the present time, Vermont is building an interstate road, and hires considerable highly-specialized help from outside the State. These men make top wages all summer, and could easily lay by enough to see them through the winter months — but they choose to also collect top unemployment payments, and spend a winter vacation in some of the more southern states! It seems odd that these young men are allowed to choose these summer jobs and avoid other work all winter.

Several years ago a man, long known for his habit of seeking welfare at the first sign of cold weather, was given a job cutting roadside brush at the usual rate of town laborer. He had no boss or overseer, and was supposed to cut brush any day the weather permitted. A spell of fine weather came about and the fellow did a good job.

Then came a cold spell, and several other welfare seekers criticized him for working so diligently, as it made them look bad for not accepting work. Although he was earning enough money to live on, he simply quit working. Other welfare seekers left town rather than cut brush and went to the city, where they immediately applied for aid (and got it). Vermont law made it mandatory that the town support its own legal residents in the city, even though there was work available in the town. They had not lived in the city long enough to establish residence, nor away from the town long enough to lose town residence.

The interesting thing is that the man who would work was encouraged not to work, and the men who were well able to work had taken advantage of welfare laws so set up that no resident citizen could be completely ignored. All were legally encouraged by law to become welfare recipients. These same laws are used by young men to get on relief rolls with their first job.

Our laws are made with good intentions, but they are being more abused all the time, making things harder for those who do obey them. — Sage, Pleasant Valley, Cambridge, Vermont.

IT'S QUITE A SHOW!

For several years my husband and I have enjoyed the show put on by the birds attracted to our dining room window by winter feeding. We eat breakfast to the cheerful "dee-dee-dee's of the lively chickadees. Sometimes the cardinals are there first. The jays are later arrivals, always noisy and ready to gobble anything on the menu. We'll hear "auk, auk, auk" and see a nuthatch head appearing from the underside of the feeder. He'll glide over the edge, grab a sunflower seed, and dart away.

During the winter of 1962 we were surprised by visitors we had never seen before — four pairs of purple finches. They became regular customers. Evening grosbeaks came at times, and, of course, tree sparrows, juncos, downy and hairy woodpeckers were daily visitors.

During the fall migration we saw warblers, and sometimes the myrtle warblers would linger on for a week. My husband suggested I keep a record of the birds we saw at the feeder, so I started my bird diary. If a strange bird comes we try to identify it from Roger Tory Peterson's "Field Guide to the Birds." It's a nice hobby.

Our feeders are home-made, and my husband placed them about a foot from the house wall at window sill height, so that by sitting quietly at the window we can see the birds close up. A plump chickadee will swoop in to the window ledge where I have scattered a few sunflower seeds. We can see the markings of his feathers, his bright eyes, and the wire-like feet with which he holds the seed as he perches on the edge of the sill (the seed between his feet) and splits open the hard seed cover with his sharp bill.

The funny little nuthatch has a different system. He can't hold the seed as the chickadee does. Instead, he wedges it tightly into a crack before he pecks it open. Sometimes he'll find that there are seeds left in the tray after his appetite is satisfied. Busily he sets to work carrying them to our soft maple and wedging them into cracks in the bark. I've seen our maple polka-dotted with sunflower seeds that the thrifty nuthatches have put there.

He's Untidy!

The cardinal likes to sit down at table and eat at his leisure. He has a different way of opening the seed cover. Nature provided him with a nutcracker beak which exerts enough pressure to crack the seed. Pieces of shuck dribble from the sides of his bill. He is untidy, like a boy eating peanuts and dropping the shucks.

The bluejay loves sunflower seeds, too, but he is not as clever as the chickadee or cardinal about cracking the seed covering. He whacks at it with his bill and gets it open "by main strength and awkwardness," as my Dad used to say.

On the hollowed-out log which is our suet feeder we watch the little downy woodpecker brace himself with his spiky tail against the bark as he hammers away at the cold suet. Although there is suet only on one side of the feeder, the woodpecker will often circle the log, pecking away at the bark, until he comes around to the suet again.

Sometimes two woodpeckers are on opposite sides of the log and both start to circle it. It is funny when they meet face to face. They act surprised, and one will fly off to a branch of the bush and sit there waiting for the other to leave.

The fall weather of 1963 was wonderful, providing an abundance of natural food for the birds. But with the first snow our feathered friends begin crowding each other at the feeder again to get at the sunflower seeds and suet. — Mrs. Margery Blakeley, East Aurora, N. Y.

Dates to Remember

March 2 — Cooperative Farm Credit Meeting, Cornell University, Ithaca, N.Y.

March 4 — Statewide Snap Bean Meeting, Geneva, N.Y.

March 5 — Regional Beet Meeting, Geneva, N.Y.

March 7 — Empire Livestock annual meeting, Bath, N.Y.

March 11 — Regional Dry Bean Meeting, Geneva, N.Y.

March 12 — Regional Dry Bean Meeting, Linwood, N.Y.

March 14 — Empire Livestock annual meeting, Caledonia, N.Y.

March 16-20 — Tree Wardens, Arborists and Utilities Conference, University of Massachusetts, Amherst.

March 25 — Cornell Agricultural Leaders Forum, Cornell University, Ithaca, N.Y. (successor to Farm & Home Week)

March 27 — Deadline for Feed Grain Program Signup at local ASC offices.

March 31 - April 2 — Agricultural Science Youth Program, Cornell University, Ithaca, N.Y.

NO CLOCK—WATCHING

I was interested in your editorial "Mom's Not At Home!"

I am of the opinion that women who are employed outside the home think they work harder, longer, etc., than those of us who stay at home. We live on a farm and have some sheep and a few cows. I have a big kennel and one grandchild. My husband works away from home and, as do many "at home" women, I help with chores.

But, so it goes. I know my hours are longer than those working in an office for their kitchens, vacations and boats. They say my time is my own, and it is. If I decide to walk on the hill with the dogs, sit in the sun with my child or sweep the floor — I do not have to watch the clock. When my own children were going to school, I was always at home when they got back. 'Spose I'm in a rut? — Margaret York, Shelburne, Mass.

RE—EVALUATION NEEDED

You have asked for opinions on whether volunteers should be paid or if some activities should be cut down. It would be too bad to have some activities cut down because of a lack of volunteers. I do not recommend paying them, however.

I am a den mother for a Cub Scout group. The boys pay 15 cents a week each for dues; there is also a registration fee and books to buy. The Cub Pack has sales and other money-making projects. If the volunteer help for the Cub Scouts had to be paid, it would mean much higher dues or more money-making projects. I think the dues should be low enough so boys of moderate or low-income families can be a part of Scouting as well as others.

Consequently, it is my opinion that we need the volunteers as such. The working mother works because that is what she chooses to do. The volunteer also does what he or she chooses to do.

Every year our Sunday School children perform in our Christmas pageant. After the hustle and scramble to teach them their lines, songs, etc., and the work of making costumes, I sit back on performance night and as I listen a lump forms in my throat, my eyes become misty, and I am filled with an indescribable gladness and joy. Am I not truly paid? — Mrs. Vincent Canne, Phelps, N. Y.

YOUR GLF COMPLETE CROP NEEDS REPORT

1 How Al Towles makes 30 tons of corn silage per acre

2 How GLF's Corn Program with Atrazine helped Mr. Towles more than double silage yields.

Silage yields up 18 tons per acre, cost per ton down

A few years ago the Al Towles dairy farm at Adams, N. Y., was matching Jefferson County averages for crop yields. With the help of Harold Dennison, GLF Crop Salesman, Mr. Towles is now more than doubling these yields.

Using GLF's Complete Crop Program, he is now producing 6 tons of alfalfa-trefoil hay to the acre where he used to get only 2½ tons. And his hay fields are holding, due to a higher lime level, the right seed selection, high fertility and good drainage.



Even more dramatic are his corn silage yields. Where he was taking off 12 tons of silage per acre, in 1963 he harvested 28 tons despite a severe drought. In 1962 the fields yielded 32 tons/acre—an average increase of 18 tons for the two years.

With a sound program, unit costs go down as yields of silage per acre go up. Mr. Towles' records show that his GLF Complete Crop Program has produced a greater net return for him.

Mr. Towles' complete crop program for silage

LIME . . . heavy, to the point where many fields are up to 7.0 pH.

SELECTION OF SEED . . . the earliest maturing hybrids from GLF, for his area: Cornell M-3 and Pa. 290. This helped assure the highest yields with the highest TDN value (well dented stage) at harvest time.

Pa. 290 Seed Corn will be in short supply this year. Michigan 250 is recommended by GLF as an excellent, short-season, high-yielding alternative.



PLANT POPULATION . . . planted in 30 inch rows. Last year population averaged 31,000 plants/acre.

FERTILIZER PROGRAM . . . 600 lbs. of GLF FERTI-FLOW 16-8-8 per acre at planting. Harold Dennison recommended this as the best one-application grade for growing corn.

WEED CONTROL . . . Atrazine at the standard 2½ lbs. per acre controlled both annual broadleaf weeds and annual grasses for Mr. Towles. He plans next year to use a 4 lb. rate of Atrazine to control nutgrass in another field. When more than 2½ lbs. of Atrazine per acre are used, corn should follow corn in the rotation.

Atrazine will clear your fields for up to an extra 10 tons of corn silage per acre where both broadleaf weeds and annual grasses are your problem.

Where broadleaf weeds are your only problem, select GLF Weed Killer "66" Improved. ("66" can return up to an extra 10 tons of corn silage per acre for each 50 cents invested.)

Talk to your GLF man about the GLF Complete Crop Program for growing corn. Ask him for your copy of the pamphlet *"The GLF 1964 Complete Crop Program for Grain and Silage Corn."* Let him help you plan for a bumper corn crop in 1964.

Cooperative GLF Exchange, Inc., Ithaca, N.Y.

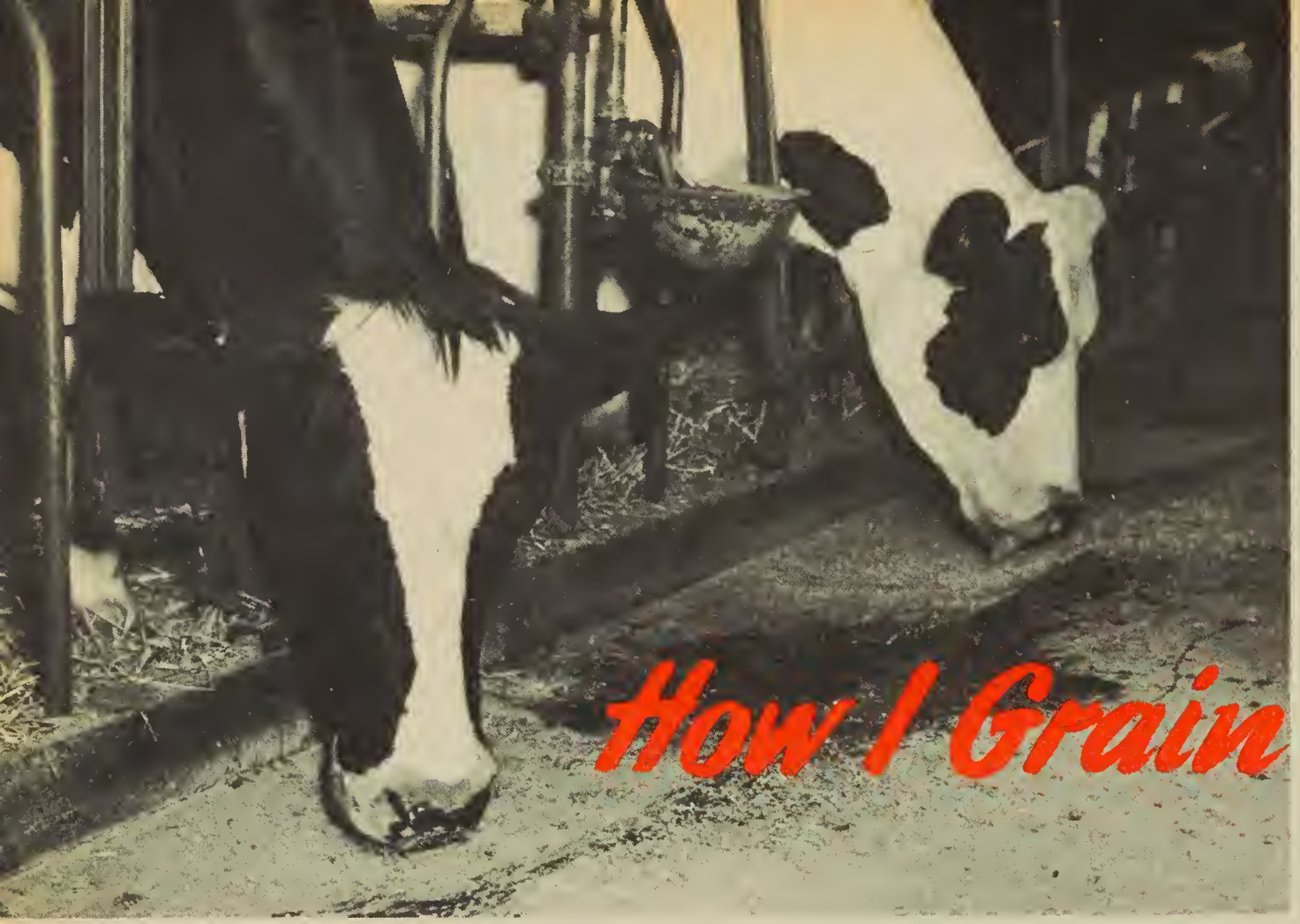
Mr. Towles is in the top rank of Jefferson County dairymen. The excellence of his crop and dairy programs (he feeds silage 365 days a year) has resulted in this herd performance:

	milk production average	butterfat average
1959	13,387	483
1960	14,988	524
1961	14,872	529
1962	15,191	540

NOTE: Mr. Towles' herd holds 8 of the 14 one-hundred-pound records (DHIA) in Jefferson County in the years 1961 and 1962.

COMPLETE CROP SERVICE

for greater net returns



How I Grain 'Em

The dairymen who wrote the letters on this page were among the 29 New York State farmers who averaged 600 pounds or more of fat during the year 1962-'63. Here are their comments about feeding.

BASED ON TDN

In tailoring the amount of feed to be fed to each cow we stay as close to a scientific means of figuring feed weights as possible. We determine the amount of T.D.N. (total digestible nutrients) the cow requires, then we figure the amount she is getting from roughage and what is supplied by the grain.

Each month we give the herd tester accurate weights and quality of the roughage we are feeding. By doing this, we feel that the DHIC feed recommendations are accurate, and for the average cow in the herd we feed close to their recommendations.

However, each cow is given individual care. If she is down in flesh she will be given more grain than is recommended by the DHIC figures; conversely, if she is overfleshed, she will be fed under DHIC figures. All our dry cows and cows that are "just fresh" are fed over the DHIC recommendations.

We practice lead feeding, feeling that it is very important to feed a cow during the dry period. When a cow is to be dried off she is taken from the milking barn to another barn away from the daily routine of milking. If a cow has had mastitis in a quarter she is dry-treated.

Stop Milking

Cows are never milked once a day to dry them. We stop milking them completely, and unless infection sets in we do not milk them again, leaving the milk to be absorbed by the cow. We have very little trouble with drying cows this way. Getting them away from the milking routine and in another barn with little grain eliminates problems with drying them off.

As soon as we are convinced the cow is dry (usually ten days to two weeks) she is brought back into the milk barn and fed the same roughage as cows in milk. She is fed grain at an increasing rate, moving up to three-fourths of a full ration of grain when she freshens. After freshening, 24 to 30 pounds of grain is fed per day. We have fed as high as 45 pounds, but 24 to 30 pounds is most common.

Pocket Book Best Check

The best check for the upper limits on grain feeding is our pocket book. We feel that going much over 30 pounds of grain per cow per day is beyond the point of maximum return per dollar spent. Roughage in this area is still our cheapest source of T.D.N. and by going to high grain feeding the cow will not consume her roughage. Actually, then, what you are doing by feeding grain over 30 pounds is substituting an expensive source of T.D.N. (grain) for a cheap T.D.N. feed (roughage), and this costs money.

I feel that grain feeding has little effect on causing mastitis. If the organism is present, and if the cow is a problem, a high level of grain feeding may aggravate the problem but will not be the cause. It is a better practice to eliminate or reduce mastitis by better milking habits than to under-feed the cows in an attempt to reduce it.

The cows at Jaway Farm are milked three times daily (at 6 a.m., 2 p.m., and 10 p.m.) in a conventional barn with two men running three machines. — **Wayne F. Kelder, Accord, N. Y.**

FEEDS PELLETS

I have fed cows grain as recommended by our DHIC tester. However, in the beginning of the lactation I attempt to lead feed a little. After the first couple of months I follow our tester's grain sheet closely.

About two weeks before freshening I start feeding approximately 8 pounds of grain per day, and gradually work them up to about 15 pounds. Immediately after freshening, I work my cows up over a week's time to 25 to 30 pounds per day.

I don't think anyone can convince me that high grain feeding causes mastitis. Mastitis occurring during high grain feeding and high production is naturally much more extensive, and more difficult to treat if not caught in time. The infectious germ had to get into the udder, and usually you can find the reason.

I have a stanchion barn with a milking parlor. I feed 4 pounds grain per cow in the parlor and the rest in the barn.

In the summer when I don't use the barn I have been feeding pellets, and by not hurrying the cows through the parlor have had little trouble getting the required feed into them.
— **Peter Bulkeley, Tivoli, N. Y.**

HIGH PRODUCERS

For the amount of grain to feed each cow we watch the DHIC recommendations, and then go from there. The heavy producers will usually not eat as much as the recommendations call for so we have been considering feeding grain three times a day, in the hope that the cows will eat more.

Dry cows and ones well along in lactation are usually fed above the DHIC recommendations; appetite and body weight are taken into consideration.

We try to get most of the dry cows up to one-half to two-thirds of a full grain feed before freshening, and start them on full feed as soon after freshening as their appetites will permit. We have fed up to 35 pounds of grain a day to about three cows in the past year, but would go higher if production and appetite warranted it.

Heifers freshening for the first time are fed more than the DHIC figures call for; we feel that they are still growing as well as producing.

We do not feel that high grain feeding has any connection with mastitis except that a high-producing cow is more susceptible than a low producer. — **James Cleverley, Warners, N. Y.**

KNOW YOUR COWS

I know of no special way to make cows milk. We weigh every milking from every cow, and try to figure out why a cow's production goes up or down. Then we try to feed her for more ups than downs on the chart.

We try to treat cows for acetonemia, lameness, indigestion, mastitis, and breeding troubles before the cow gets in serious trouble.

We feed close to DHIC recommendations, but 30 pounds a day is about our limit. Usually our cows won't eat much more than that anyway with good corn silage and good hay.

If production drops, we don't cut the feed as fast as DHIC recommends. I'd rather have the cow gain back a little weight first.

I don't believe grain produces mastitis. Heavy use of a cow's udder (or any other farm equipment) might increase its chances of a breakdown. But you can't afford to keep one for an ornament.

We don't have a milking parlor, so I don't have to teach the cows to eat fast. Some of mine take a half hour or more to eat their grain.

In the spring of 1963 grain was actually a cheaper feed than high-priced hay. We did heavy grain feeding and "lead feeding" with good results. But I had one notable exception — she milked less and grew fat! When I realized that she really wanted to make meat instead of milk, I **sold** her for meat. That cured her quick.
— **Robert Greig, Red Hook, N. Y.**

NOW – For a Limited Time

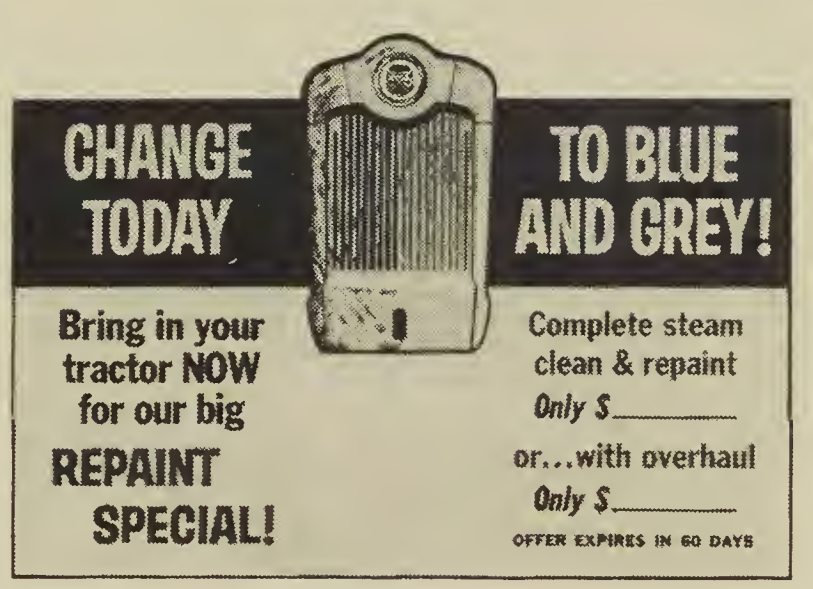


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GIVE YOUR TRACTOR THE NEW-BLUE LOOK AT NEW LOW PRICES

Put the pride back into your tractor ride and the trade-in value back into your tractor with the big, new "Paint 'em Blue" special now being offered by many Ford Tractor Dealers. Your Ford dealer will steam clean away dirt, grime and accumulated corrosion, and paint the entire tractor the new Ford blue and grey colors! This special steam clean and repaint offer is made for a limited time, so make arrangements to "Change Today to Blue and Grey" at money-saving prices.

PRODUCTS OF Ford MOTOR COMPANY



Look for the Ford Tractor and Equipment Dealer that displays this "Paint 'em Blue" sign. Take advantage of his money-saving offer today!

Here are the dealers participating in the "Paint 'em Blue" offer in your area:

BATAVIA
Tri County Tractor and Equipment, Inc.
Rte. 5

BERGEN
Morley Tractor Service Corp.
68 Lake St.

BUFFALO
Buffalo Tractor and Implement Co., Inc.
3045 Seneca St.

CLARENCE CENTER
Yoder Bros. Inc.
Clarence Center Rd.

CLARKSVILLE
Hansen Tractor and Impl.
Rt. 43

CLINTON
Clinton Tractor and Impl.
Meadow Street

CROPSEYVILLE
Brown's Garage
Rte. 2

DEPAUVILLE
Carl C. Fry, Inc.
Rt. 12

DUSHORE, PA.
Fitzpatrick and Lambert

ELLENBURG DEPOT
Nephew's Garage
Rt. 11

FAIRPORT
Jennings Ford Tractor Sales
7216 Pittsford-Palmyra Rd.,
Rt. 31

FORT PLAIN
Duesler's Garage
Rt. 10

GOUVERNEUR
Dodds Motor Corp.
711 Clinton St., Rt. 11

GRANVILLE
Scott Tractor & Impl. Co.
56 Potter Ave.

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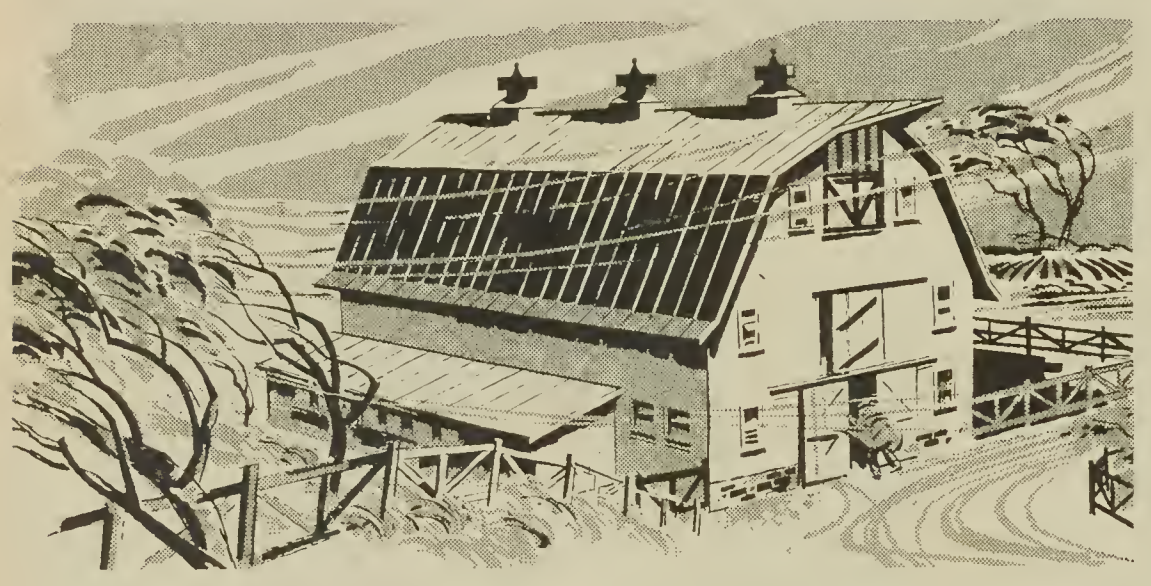
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FARM DOLLAR GUIDE

"SCARE" PREDICTIONS OF DOLLAR WHEAT and vastly-increased acreage if growers turned down government wheat program have failed to materialize. Winter wheat acreage is up slightly (2.3%). Government economists now talk of $1.35 for winter crop of wheat. On January 31, December futures prices for wheat at Kansas City stood at $1.73.

DECEMBER WAS THE 15TH MONTH IN A ROW that fluid milk sales in the New York-New Jersey milk shed were higher than the same month the previous year. Result, says American Dairy Association, is $3,754,000 more money to dairymen because of increased fluid sales.

Although some hold-over granular Atrazine from last year may be available, IT WILL BE MANUFACTURED AS A SPRAY - but not in granular form - for weed control in corn this year. Manufacturer says weed control is better with spray, and danger of damage to succeeding crops is less.

FOUR MAJOR MILK COOPERATIVES in the New York-New Jersey milk shed have taken steps to handle bulk milk of members without cost where dealers attempt a 10 cents per cwt. charge for hauling.

IMPORTS OF BEEF (11% of our total beef consumption in '63) have been hurting beef producers, especially in Northeast, because imports compete with U.S.-produced meat products. Recently live stock producers met with Secretary of Agriculture Freeman to discuss the situation. Government is reluctant to increase duties or put on quotas. Freeman suggested attempts to get voluntary agreements to lower shipment from important beef-exporting countries, including Australia and Argentina.

STOCKS OF POTATOES in the fall-producing states on January 1 were 116.8 million cwt.; year ago, 117.2 million. However, stocks in New York, Maine, and other eastern states were considerably below year ago (New York down 12%; eight eastern fall states, 41.2 million cwt.; last year, 45.2).

A STUDY OF 600 TRACTORS reported by Burton S. Horne, Penn State University, showed year-round housing increased useful life almost a year, and reduced repair cost 19%. A similar study with 100 combines showed a 1½-year gain in useful life and 6% reduction in repairs.

Importance of HOMEGROWN FEED for the dairy is highlighted by Cornell study showing that in 1962 New York dairymen (because of drought) averaged to spend one-third of milk check for purchased feed instead of customary one-fourth.

DIRTY LIGHT BULBS in the henhouse can reduce light by 25 to 50 percent. Regular cleaning pays dividends.

The Song of the Lazy Farmer



Mirandy's life is pretty tough, she never does have time enough to catch up on the work she's got; she keeps that broom of hers red-hot, the floors get swept four times a day, and in between she works away at scrubbing down the basement stairs or dusting all the frontroom chairs. There's cookies, pies and bread to bake, then pans to wash and beds to make; the rugs need beating now and then, each week she kills and picks a hen. Three times a day keeps me fed, and after I have gone to bed she sits beside the fire and rocks while darning up a pile of socks.

Whene'er I watch her rush around, I always wish my health was sound so I could help her out a bit, then she'd have time to stop and sit. But I'd have trouble with my back and maybe risk a heart attack if I dared push a mop or broom, I'd never finish up one room. My sinuses and allergy keep me from dusting too, by gee, there's nothing outside I can do as long's I have this touch of flu. So even though it makes me boil to see Mirandy work and toil, I help by resting quietly so she don't have to doctor me.

The QUESTION ? BOX



Can you give me some pointers for designing a home water system?

Although your letter states that you require only about 25 gallons of water per day, I believe it would be a mistake to design a system with this low capacity even if very small pumps were available. Ordinary home uses require from 30 to 70 gallons of water per person per day. The smaller sizes of home water systems pump about 325 gallons per hour at low pressures.

The design which you sketched on the back of your letter should work satisfactorily. However, I believe the newer design of submersible pumps would be less expensive when the cost of heavier wiring and a frost-proof pump house for an above-ground pump were included.

I would suggest that you use a 1/3 horsepower submersible pump with a one inch diameter discharge pipe, and locate the pump in the spring. If the pump and discharge pipe were completely under water, there would be no need for additional frost protection.

The wire leading from the control box to the spring can be buried in the same trench as the water line providing you use UF type wire. On a 115 volt circuit, the #4 wire size will keep the voltage drop within 2 percent at full load. If you use a 230 volt circuit the wire size can be #10. The 230 volt circuit will materially reduce the cost of the feeder wires. — Carl S. Winkelblech, Extension Agricultural Engineer, Cornell University

Does New York State require dairy bulls to be vaccinated when used for service?

I presume you are referring to calfhood vaccination for brucellosis control — the answer is that dairy bulls should not be vaccinated. It is very uncommon for a dairy bull to contract brucellosis naturally, and further there has been a high incidence of a testicular infection of bulls that have been vaccinated which has never cleared up and consequently has meant that the animal was useless. — J. Bruce Stone, Cornell University

Would painting the cooling fins and cylinder block (cast iron) with aluminum paint help to dissipate heat from a gasoline engine? What operating oil temperature is best for a tractor or automobile?

The only effect of a choice of paint on cooling is that portion of the heat which is given off by radiation — a relatively small portion. Most of the heat from an engine (either air or water-cooled) is removed by conduction and convection of either the air or water involved. While aluminum paint is frequently used on engines, the light color actually radiates less heat than does a darker color. In house heating, radiators are often painted a dark gray rather than a lighter color; probably the greatest value of paint is the improvement in appearance, plus some value in rust prevention for exterior use.

Regarding oil temperature, there is no clear-cut answer. For minimum engine friction (and maximum horsepower) the engine and oil temperature should be 200° to 250°F., with oil viscosity ("thickness") being also at minimal levels. For maximum engine life, the engine temperature should be somewhat lower with oil viscosities somewhat higher.

Oil viscosities can, of course, be chosen to fit either a higher or lower temperature range. In recent years we have had available the so-called multi-viscosity oils, which in reality are oils that have a more stable viscosity with relation to temperature.

To sum this up, what is the best temperature for bearing life may be somewhat low for maximum horsepower. Actually, the problems of low temperature starting frequently dictate engine oil viscosity. If an engine is to be put to heavy use (such as large trucks), they are often kept in heated storages so that a higher viscosity oil (oil with a higher S.A.E. number) may be used.

It is generally easier in most tractors or gasoline engines to use a slightly higher viscosity oil for heavy duty use than it is to equip the engine with an oil cooler. Many automotive engines used for marine purposes (heavy duty) often have a larger pan to accommodate more oil, and thus secure more cooling — some are equipped with an oil heat exchanger.

There is no one best oil temperature for all engines. However, for our common engines the range is purposely rather wide to provide for both winter and summer conditions. — E. W. Foss, Cornell University

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Doubling Crop Yields on North Country Clays

by Robert B. Child*



"I like to see that water move!" says Myron Leonard, Burke, New York, pointing to a stake in new field ditch.

"UNLESS AND until farmers generally in the North Country can handle their drainage problems more adequately, there will not be too much progress on increasing use of lime, fertilizer, seed, and other crop production items."

So says L.C. Cunningham, Professor of Farm Management at Cornell University. Dr. Cunningham bases his statement partly on his study of commercial dairy farming in the North Country region of New York State seven years ago. His conclusion is strengthened by recent surface drainage research findings on the Joseph Amyot farm at LaFargeville, Jefferson County.

Greatest Need

The greatest need of the North Country in maintaining its competitive position in dairy farming is improvement in the quantity and quality of hay and other forage for cattle. After two years of yield results on the Amyot plots, Dr. Paul Zwerman of Cornell's Agronomy Department says: "If North Country dairymen on heavy clay soils are going to survive, they must do something about land drainage." Based on their research, Drs. Zwerman and Robert Lucey believe that the most potentially productive clays of the North Country are the heaviest and most poorly drained.

How much of the heavy clays and sands of Clinton, Franklin, Jefferson, and St. Lawrence Counties would respond to land surface drainage? After talking with farmers, agronomists, county agricultural agents, Soil Conservation Service personnel, and land economists, I estimate that the answer is at least 150,000 acres, mostly Panton clays.

Howard Conklin, Professor of Land Economics at Cornell, zeros in on the problem this way: "North Country farmers have been used to extensive agriculture for many generations. On many farms the practice has been to leave a field in hay for 10 years, at an average yield of 1 ton per acre. But now the dairy farm trend is toward intensification. If North Country dairymen are going to compete with other areas of the Northeast, many of them must change their management outlook. Those who succeed will pick carefully the land that will really respond to management, including drainage."

*Market Surveys Supervisor, GLF, Ithaca, New York

Some Definitions

What are we talking about when we say land surface drainage? Here are official definitions from the USDA Soil Conservation Service of the two most common surface drainage systems:

Bedding: Plowing, blading, or otherwise elevating surface of flat land into a series of broad, low ridges separated by shallow, parallel dead furrows. (This practice is sometimes called "crowning.")

This work is carried further in a complete "bedding" or "land elevation" system by constructing interceptor, collector, and outlet ditches. Further ditches can be constructed to grade between the beds, which serve as shallow surface ditches.

Land Smoothing: Removing irregularities on the land surface by use of special equipment, such as a land leveler. This does not include the "floating" done as a regular maintenance practice on irrigated land, or the "planing" done as the final step in irrigated land leveling or drainage land grading operations.

Jefferson County

County Agricultural Agent Russ Hodnett feels that poor drainage and traditional cropping programs are primary problems in economic milk production in Jefferson County. He says that North Country dairymen can not continue to get by on low level yields. Russ believes they have been using too much land and, so far, most of them do not seem to be sold on the need for intensifying on a few acres.

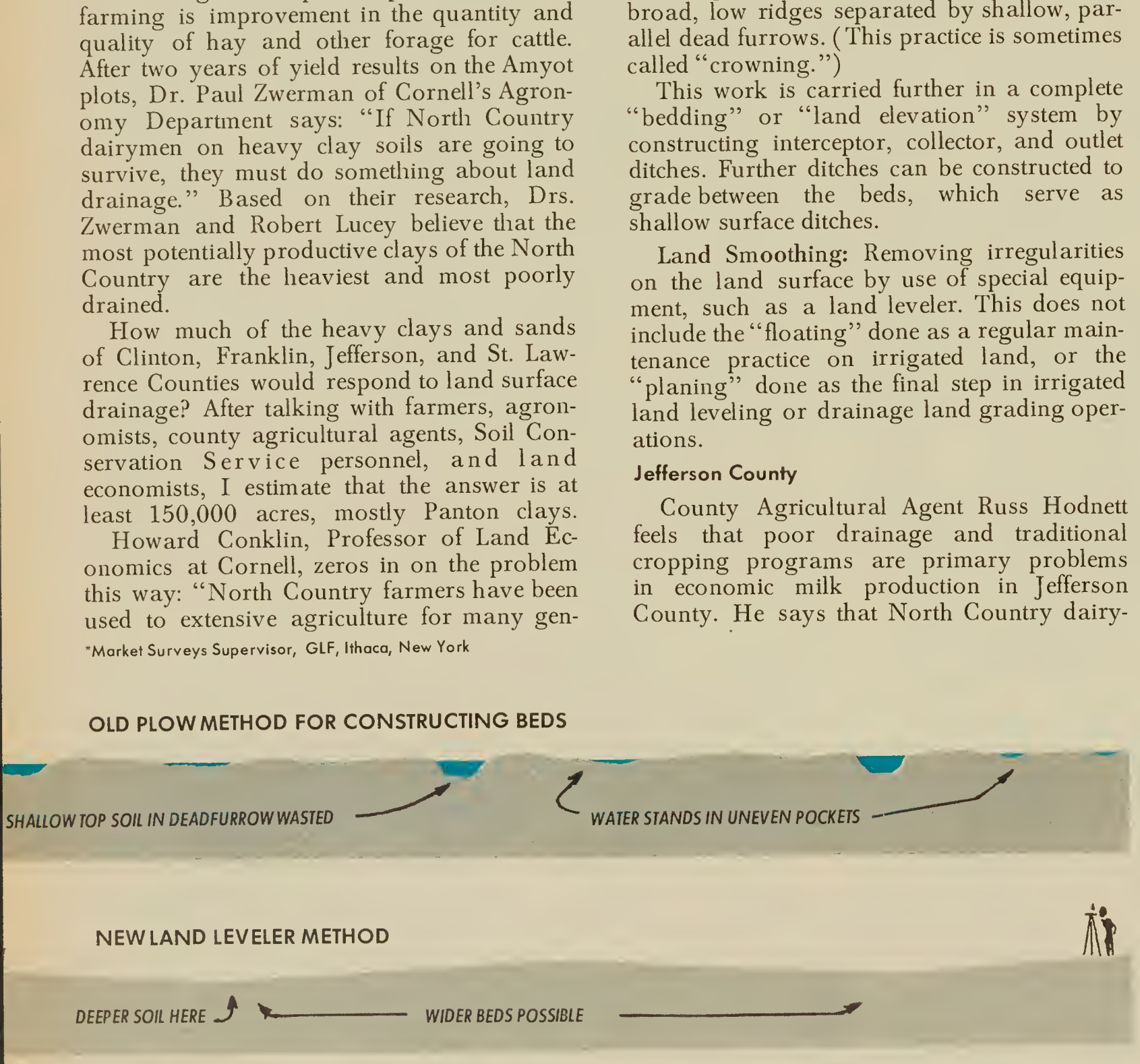


Those wet spots on nearly-flat land in Addison County, Vermont, illustrate drainage problem.

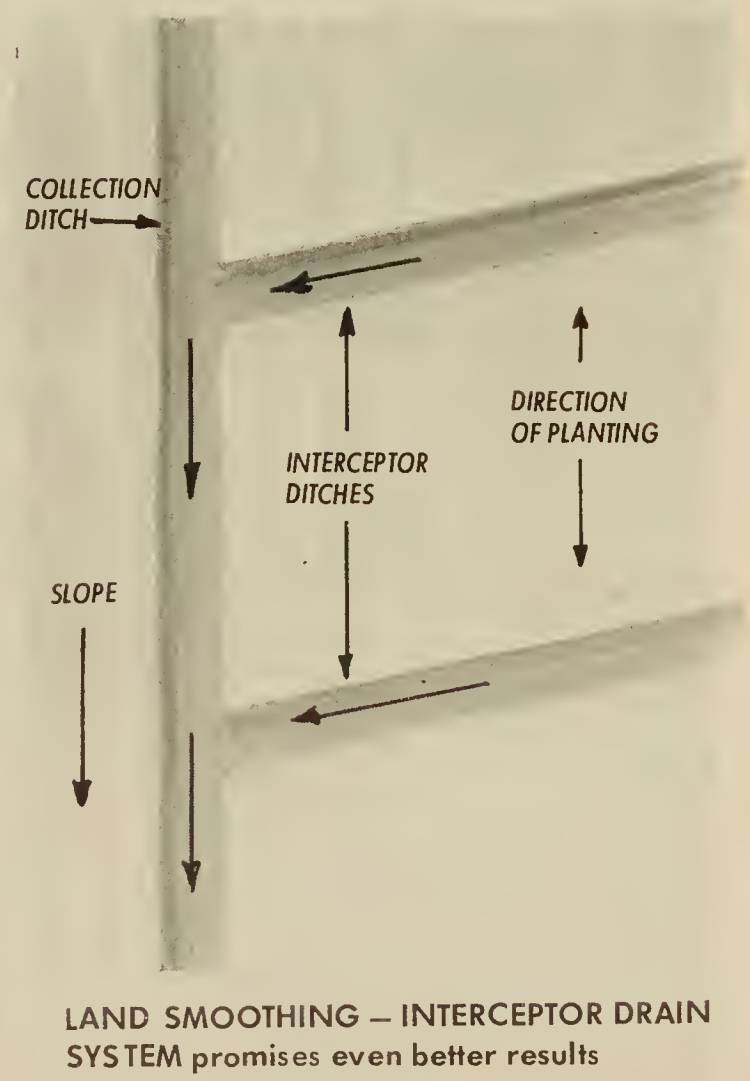
Don Neuroth of Theresa is the farmer chairman of the Jefferson County Soil Conservation District. Don tells us that in November, 1963, the County A.C.P. farmer committee raised the payment on surface drainage from 25 to 30 cents per foot for open ditches in fields. Half of approved drainage construction costs can be paid by A.C.P.

After farmers have learned how, I am told they can make their drainage beds for less

(Continued on page 26)



PRECISION LEVELING IS THE ANSWER



LAND SMOOTHING – INTERCEPTOR DRAIN SYSTEM promises even better results



How to grow more profitable silage corn this year

Start your weed control early and you can boost both the per acre yield and total digestible nutrient value of silage corn. How? By preventing weed competition during the all-important first three weeks of corn growth. That's the recommendation of independent research men, after three years of intensive field study.

The best early weed control

Atrazine 80W herbicide, applied at planting time, can give you exactly the kind of weed control that's needed—weed control that encourages vigorous corn growth during this critical period. A single application of Atrazine can help assure ample supplies of plant foods and moisture for your corn, by controlling most annual broadleaf weeds and grasses.

How to use Atrazine

You can spray Atrazine as you plant... broadcast over the entire field or as a band over the row. Or you can plant first and follow up with a broadcast or band application.

Rainfall carries Atrazine down into the weed root zone. But shallow cultivation or rotary hoeing can assure proper placement of the Atrazine if moisture is lacking. Once in the soil, Atrazine is absorbed through the roots of germinating weeds. And soon after the weeds break ground, they die.

Atrazine can be applied any time until the weeds are about 1½ inches high. The spray won't hurt young corn. But your weed problem will be solved quickly, because Atrazine works through both the foliage and roots of newly emerged weeds.

It's easy to give corn the advantages of weed control with Atrazine. Most sprayers designed for the farm can be used for the job, or a custom applicator can do the job for you.

Added benefits during dry weather

In a dry year, corn needs every bit of moisture and plant foods it can get. An early and thorough job of weed control with Atrazine eliminates the added stress of weed competition during drought periods when moisture is a critical factor.

Atrazine gives corn a full season of sure, effective weed control—control that won't let weeds get started, from planting to harvest.

Ask any Atrazine supplier for full details and for the new color booklet on weed control with Atrazine. Or write to Geigy.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

Geigy

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Atrazine





One of the marked trends in farm tractors is more power; the one here boasts 119 horses under the hood! Every tractor manufacturer has a similar "big one."

HOW TO BUY A NEW TRACTOR

by Tom Clague

BUYING A NEW tractor is a major project involving many decisions before you finally arrive at the best solution to your problem. These decisions involve brand, price, size, type of fuel, transmission, hitch, power steering, hydraulic system, seat, etc.

A common idea concerning brand may be that one particular brand is "best," and that therefore this is the brand that should be purchased. But there's more to the matter than simply which brand is best.

Service Important

In the first place, good dealer service is an important aspect of owning a tractor. Suppose you had a problem that would normally be covered by warranty. If you have purchased from a dealer a long way from you, he will find it easier to neglect you than a customer close by.

However, most of the time you own a tractor it will be out of warranty. The attention your tractor needs won't be free, nor will you expect it to be. But you'll still need the service — and you'll want it to be competent, readily available, and worth what it costs; you'll want repair parts to be in stock when you need them. All of this depends largely on your local dealer. When all is said and done, the way in which a local dealer provides service and repairs may make his brand best for you, simply because no other brand is as well serviced in your vicinity.

Then there is price. Check the going rate on various outfits and on used equipment. When you're all through, your best deal is not necessarily the lowest in price.

Suppose you save $100 on a $4,000 deal by driving 25 miles beyond your closest dealer in that brand. If you keep the tractor for 10 years, that's $10 a year you'll save. Your local dealer will know it, and you can't really blame him if he tries to make up on your service the reasonable profit he would have made on your deal. If you ever ask him for service, you will always wonder if he's "catching up." And well you should. He probably needs your business to keep his doors open. So, when you compare prices, keep in mind that almost any dealer can sell for less farther away from home.

What Size?

Size is one of your most important decisions. How much larger should your new tractor be than the one you're replacing? There is no simple answer here. You must try and match your new tractor to your present and future needs. What will your situation be three, five, seven years from now? This will affect the size of the tractor you'll buy.

It's safe to predict that your new tractor will be considerably larger than the old one. Ten years ago a 50-horsepower tractor was considered pretty powerful. Today, 60, 80, 100-horsepower tractors are replacing them, for sound reasons. Capital is cheaper than labor, as a general rule, because one man can do enough more to justify the added investment in equipment. Bigger working capacity is a form of crop insurance; being able to do a job quickly at planting, cultivating, or harvesting time will increase returns over the long pull.

Incidentally, it should be pointed out that the cost per horsepower of today's larger tractors is considerably less than that of pre-war tractors when expressed in terms of the real purchasing power of the dollar. And this does not take into account the extras that today's tractors have, such as transmission options, power steering, hitches, hydraulic systems, etc. This is not really a matter of price. Instead, it's a matter of real value of what you get for your money today.

Type Of Fuel

You'll also want to give careful consideration to the type of fuel your new tractor burns. There is apparently a lot of glamor to a diesel engine, because some that are being bought would appear to be uneconomic purchases. Diesel fuel costs less per gallon, and a diesel requires less fuel per hour to do a job than does a gasoline engine. Thus, if you operate enough hours per year you will be money ahead with diesel over gasoline, even though a diesel tractor may cost several hundred dollars more.

But it's safe to assume that unless you use a tractor considerably more than average, a diesel may not be economical for you. Check this carefully, estimating the hours required for the new, larger tractor to do your work. Use Nebraska test information to figure fuel consumption per hour. And remember, as you look into the future, that the difference in cost between gasoline and diesel fuel has dropped considerably in the last dozen years or so.

Although LP-gas isn't being used very much as a tractor fuel in the Northeast, you may want to explore possibilities and relative costs. It *is* heavily used in some areas where it is readily available at a competitive cost — offering a fuel that burns exceptionally clean.

Transmission Type

Another consideration is the type of transmission you want in your new tractor. This can vary a great deal. There's always the ordinary "straight stick." There's on-the-go shifting from a low range to a high range, and back. And there's a true clutchless transmission that you can shift to any gear, any time.

Convenience and working capacity are the factors here that you must balance against the extra cost of the type of transmission equipment you desire. Being able to shift on-the-go can increase your working capacity in a manner that is just as important as plenty of horsepower under the hood. In addition, convenience is an intangible value that can be worth a great deal, although only you can put a price on it. Here is a case where a desire for one particular transmission might tend to make that brand of tractor best for you over all others.

The hitch is another consideration which warrants your careful thought. Some of the new semi-mounted steerable plows offer you features that you couldn't get in a trailing plow. Rear-mounted cultivators are also gaining in popularity. Only you can decide whether the extra money a hydraulically-controlled hitch may cost you will be a sound investment.

On the other hand, power steering is an option that you certainly should not overlook, especially if your new tractor is fairly large. This is a convenience that is hardly a luxury. It can improve the handling qualities of equipment enough so that it's almost a necessity, and can easily increase the working capacity of the man-machine combination in a day.

Control Systems

You expect to get hydraulic control systems on all tractors today, but you may have to decide how many control valves you want. This will depend upon what you will expect to do. For example, do you want independent control of the various elements of a cultivator? This may take more valves than the minimum you could get.

The tractor you purchase may be equipped with a special seat designed to produce the easiest possible ride, or it may offer one as special equipment. By all means consider the best possible seat that is available. It will increase the effectiveness of the operator so much. Such a seat might cost $35 extra, but it is one of the best bargains you'll find.

Buying a new tractor is a complex matter involving one of the largest machinery investments that you make, and you'll be living with your choice for a long while. It will pay you well to consider the many aspects of your decision carefully so as to make your investment work for you as hard as possible.

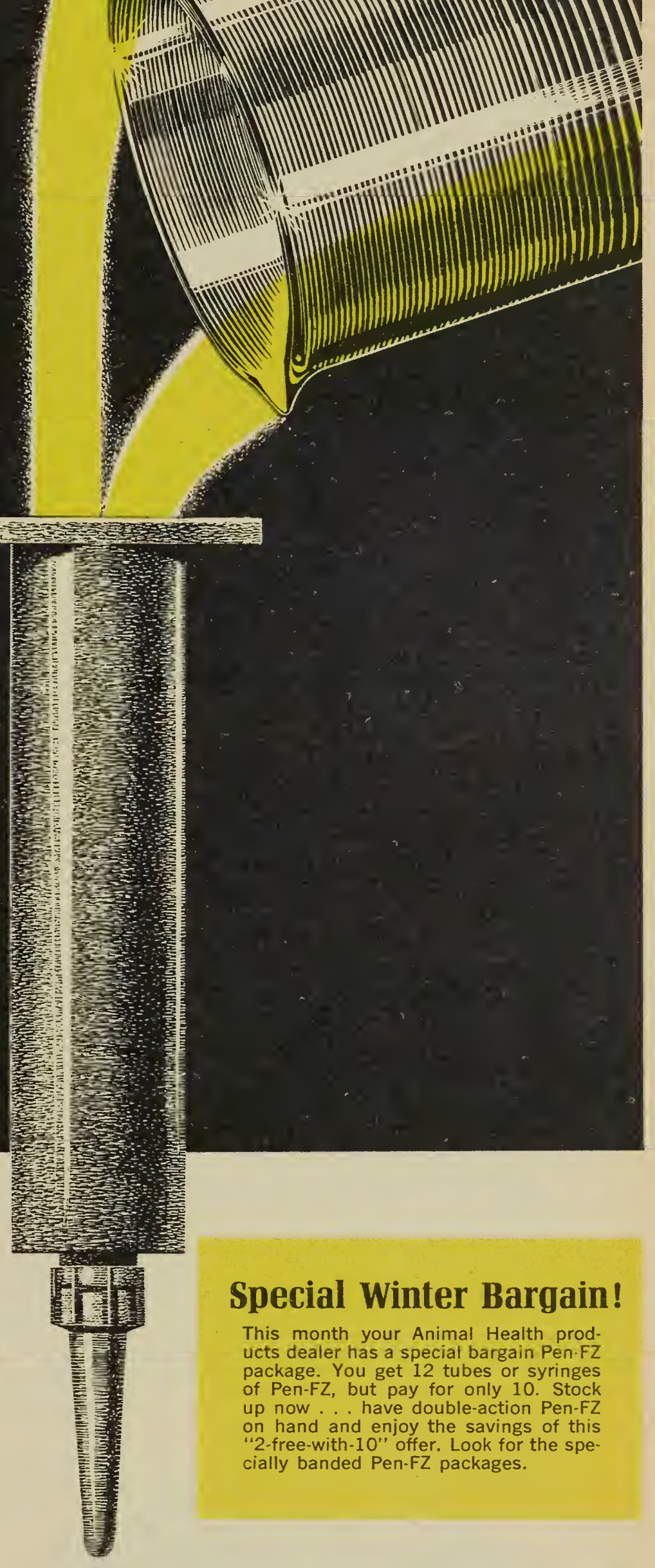
American Agriculturist, March, 1964

from the HESS & CLARK animal health center

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P-4-5R



Jim Morgan points to welded metal mats that are behind free stalls. Cows' feet will not wedge in or go through holes.



View from a corner of the barn under construction shows one of the liquid manure channels. At upper left some free stalls are in place; another row will be at the extreme right.

Some New Directions in Dairy Barns

THE MORGAN BROTHERS of Freedom, New York — trying to produce milk as efficiently as possible — have nearly completed a herringbone pipeline milking arrangement tied in with free stalls and a liquid manure system. James and Andrew Morgan needed to make improvements in their present conventional barn setup, and felt it made sense to look ahead — perhaps even 10 or 20 years.

They believe that the business of producing milk is in a period of rapid change, that there will be more and more specialization — more and more need for efficiency. They even wonder if it will be common in a few years for some farmers to be chiefly milk producers and buy their hay and silage from other farmers who are principally forage producers.

Liquid Manure Handling

The most unconventional part of their new operation is the liquid manure system which will serve their free stall barn, holding area, and milking parlor. It has some of the features of modern manure-handling systems in hog operations.

In the milking parlor, the manure will fall through grated gutters and drain into the liquid handling system. In the free stall area and holding room, manure will go through two-inch holes in welded metal mats.

The concrete drains underneath the metal mats pitch ¼-inch per foot toward a pit of 7' maximum depth at one end of the free stall barn. The Morgans are planning to empty it by backing a 500-gallon tank to the pit from outside the barn and using a portable four or six-inch auger to fill.

The tank will have a spatter plate rather than a spinner for spreading manure. This system has worked well with hog and poultry liquid manure operations, and they think it will work well here too.

Clean By Hose

In each of the barn areas, a hose can be used to flush down manure that has not fallen into the system. Jim Morgan is not sure just how much added water will be needed for manure to flow down to the pit, but he doesn't think the amount needed will be great.

The free stall area — which is 40' x 84' on the outside dimensions — has room for 82 stalls, plus crosswalks. Each stall is 7'2" long and 4' wide. There is a poured concrete block with 9" curb at the back of each stall. Each stall can hold about 10 inches of sawdust bedding, and more bedding is added as needed.

The welded steel mats behind the stalls and over the pits cost only about $300. Originally they served as landing strip material for use on emergency airfields, and Jim Morgan located the strips through a war surplus outlet. They came in 16"x 10' strips, and he welded them into sections 5' x 10'.

The barn enclosing the holding area is insulated overhead, and is made of the same 30"-wide metal panels as the free stall barn. It also has two feet of translucent window along the top of each wall panel, so there is plenty of light available.

Roughage Feeding

A 70' feeding trough with auger will be set up in the holding room to feed both corn silage and hay silage. Hay will probably be fed in bunks and feed racks in the present barn, where the stanchions will be removed as soon as possible.

In good weather, this feeding may be done outdoors, since a loafing area will be paved eventually. Jim Morgan expects feed will be brought right to the cows nearly all year, with little dependence on pasture.

Milking Arrangement

The milking parlor is a double-eight herringbone arrangement; but the Morgans will use only four milking machine units for now. They believe the extra time will give cows more chance to feed in the parlor and allow them to get more accustomed to their surroundings.

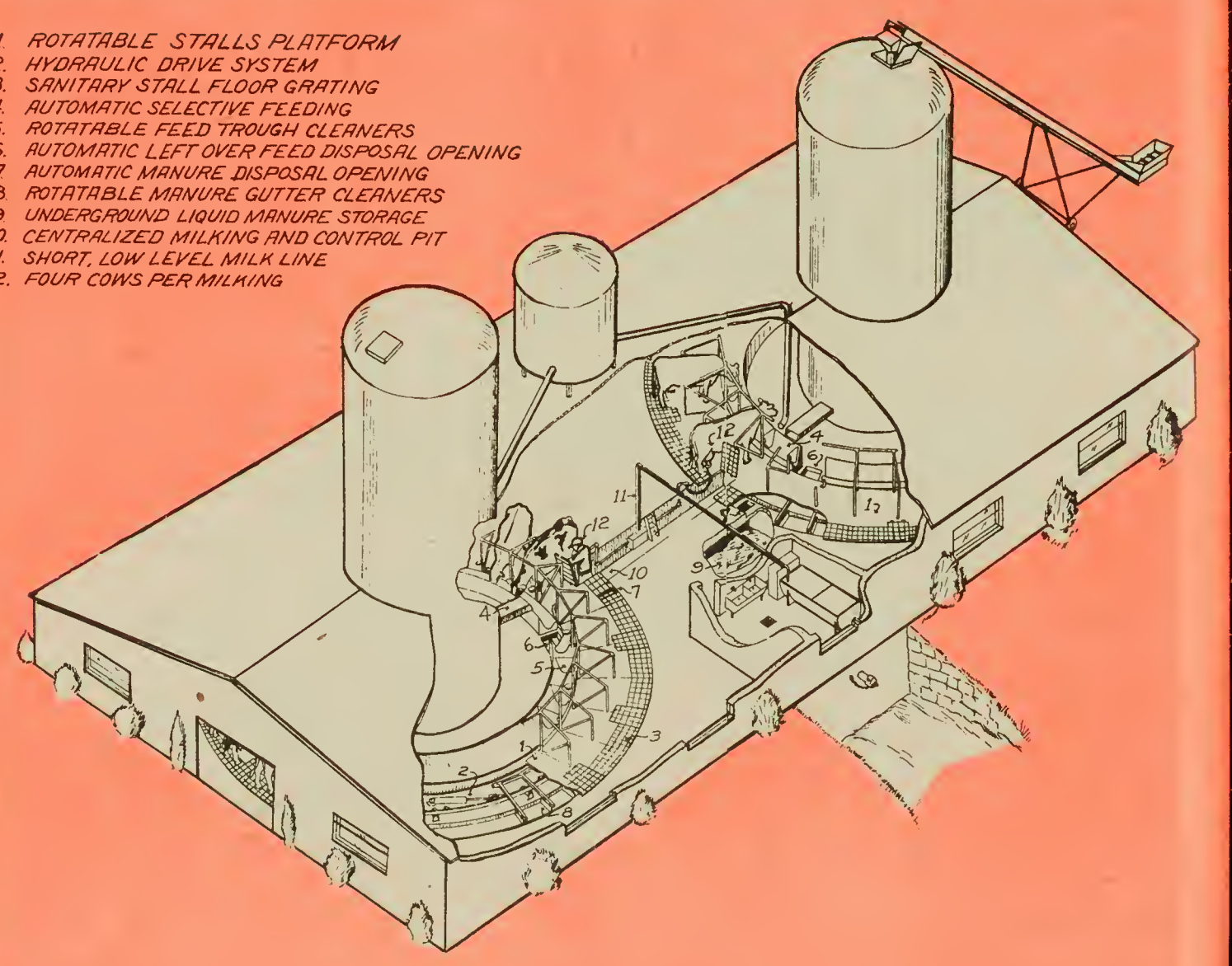
One of the Morgans handles the milking, and the other the feeding; they think that one man trying to handle more than four units is foolhardy. Jim admits, "We'll do more walking in a double-eight, but we built larger than we need now to allow for later expansion."

The bulk feed bin is located above the milking parlor and milkhouse. Feed flows by gravity to a chain feeder that runs around the top of the milking parlor to the individual hoppers in each herringbone stall. A chain pull provides the desired amount of feed to the individual stalls.

Milk flows through the pipeline to a 600-gallon tank in the 21' x 21' milkhouse. There are three inches of insulation over the top of the ceiling to help prevent temperature extremes. The milk house has plenty of light because there are some 120 square feet of glass on the outside walls.

Jim Morgan points out they have had to go slowly in constructing their new system in order to conserve finances, but they wanted to do the job right. They have tried to plan so they can efficiently keep up with even keener competition in the years ahead.

1. ROTATABLE STALLS PLATFORM
2. HYDRAULIC DRIVE SYSTEM
3. SANITARY STALL FLOOR GRATING
4. AUTOMATIC SELECTIVE FEEDING
5. ROTATABLE FEED TROUGH CLEANERS
6. AUTOMATIC LEFT OVER FEED DISPOSAL OPENING
7. AUTOMATIC MANURE DISPOSAL OPENING
8. ROTATABLE MANURE GUTTER CLEANERS
9. UNDERGROUND LIQUID MANURE STORAGE
10. CENTRALIZED MILKING AND CONTROL PIT
11. SHORT, LOW LEVEL MILK LINE
12. FOUR COWS PER MILKING



Here are plans for a "Roto-Stall System" barn being built by A.P. Benedetto of Exeter, New Hampshire. Patented by the Roto-Stall Corporation of Kensington, New Hampshire the system features rotating stall platforms, liquid manure handling, central milking pit, and automatic selective feeding.

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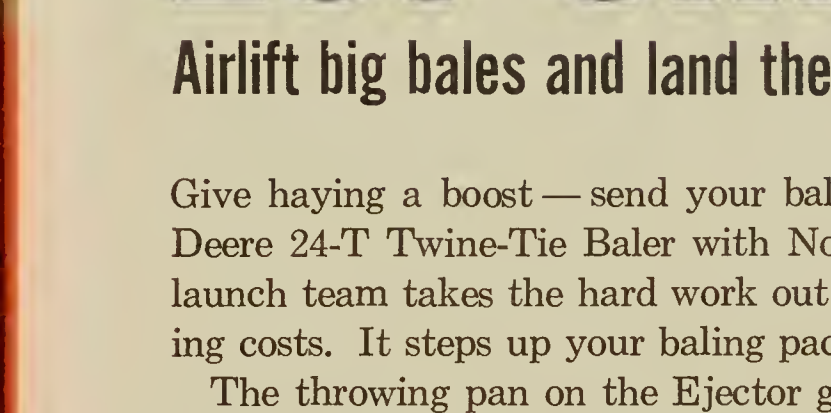
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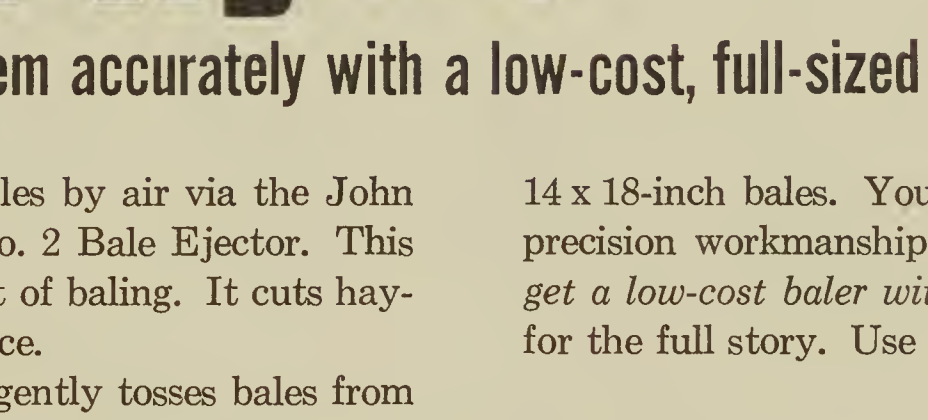
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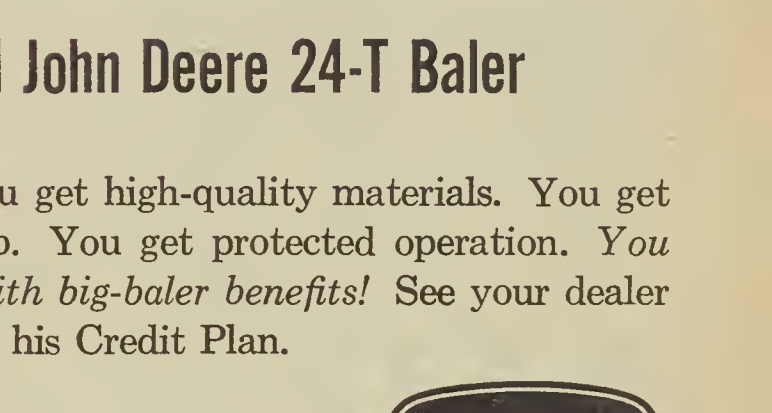
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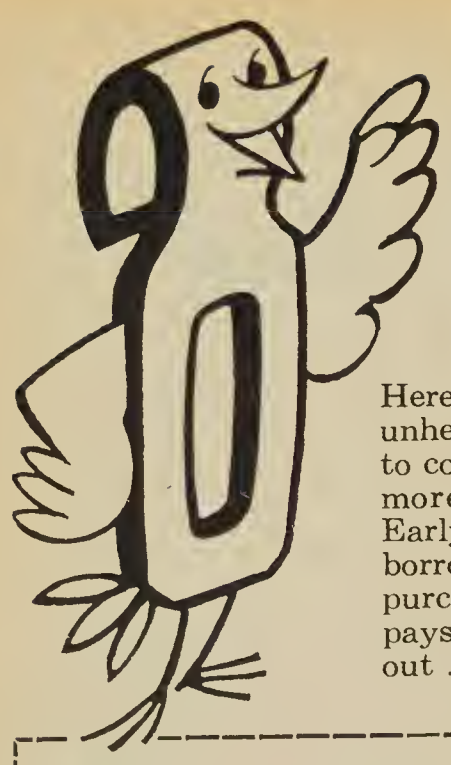


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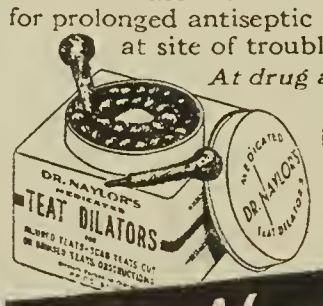


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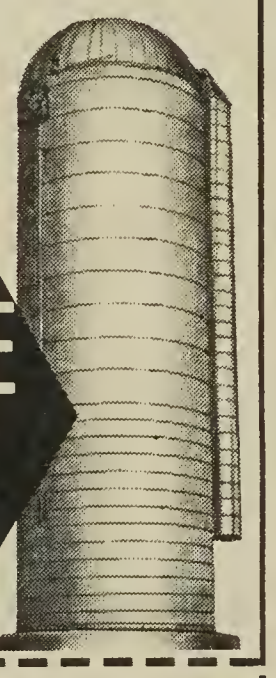
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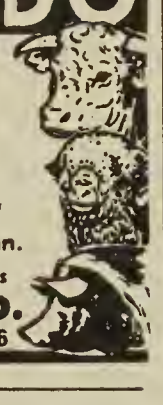
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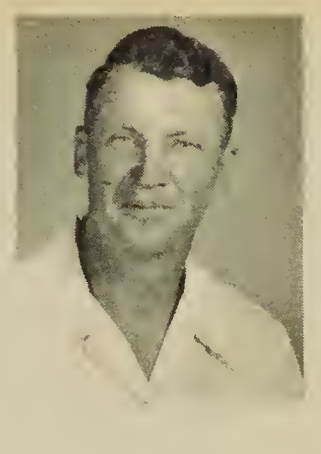
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Gayway Farm Notes

by HAROLD HAWLEY

EXPERIENCE WITH A WINDROWER

Several letters and a couple of visitors to Gayway Farm point up the very real interest there is in windrowers. First of all, let me say that I'm not selling them, although I wish I were as they are sure to be a hot item. Likewise, although we naturally selected one brand over the others — and like it very much — we're not about to suggest this is the best choice for everyone else. We have seen enough to convince us there are a few features we would want on any machine we bought.

The first requirement would be ruggedness. Moving through wet, lodged, heavy hay over the less-than-smooth fields at any reasonable speed calls for a rugged machine. This means steel guards, chrome knives, a heavy reel with steel fingers, a large water-cooled motor, with gears, belts, clutches, etc. to match. In short, this machine must be a hay machine and not just a grain windrower with a hay conditioner added.

There is little comparison between requirements to cut and windrow a stand of ripe grain and cutting, conditioning, and windrowing wet heavy hay. Obviously, a good grain windrower will likely do a good job on second or third-cutting, but may be found wanting under the conditions sometimes met with in first cutting.

Width, Too

This is true of width as well as ruggedness. A 12 foot swath of grain or second cutting would make sense, but a 10 foot swath of heavy first cutting windrowed during less-than-ideal curing weather is about all we are interested in trying to cure.

The capacity of the conditioner is important. If it can take all that comes to it the machine can move steadily along leaving nice even windrows that will cure out evenly. A lot of stops and starts mean bunches and uneven windrows, which naturally don't cure out at the same rate.

The conditioner part of the machine should be made and attached so its use can be optional without doing anything except to raise or lower it. I can't see any reason to have to take a conditioner off, then remount it when you want to use it again.

We mentioned that we prefer a large water-cooled motor. Necessarily, the motor works hard in heavy hay, especially in hilly situations. The operator and the motor are all too close together on any machines I've seen. A cool-running motor is still plenty hot on a good hot day; a hot laboring motor is well-nigh unbearable. And certainly no one wants to shut down to let a motor cool.

Don't Mix

Our experience is too limited to make us experts, but one thing we learned for sure — stones and windrowers don't mix. We have always picked stones pretty religiously and have rolled the wheat in which we seeded; even so, some stones have always got by. They caused us enough grief last year so that we went over all our hay fields after we took off the first crop and picked off any stones we could find.

We plan to pick over all fields again this spring before the new growth gets too big if we can possibly find the time. Remember, here is a machine which will knock down 3 to 4 acres an hour if it is moving. We replaced knife sections galore until we got a bar with chrome knives. We wouldn't again let anybody deliver us a machine that didn't have chrome knives in it from the start.

It's a slow, frustrating job to replace sections with the bar in the machine, and a real chore to pull a 10 foot bar out, replace a knife, and put the bar back in. Better to pick stones first, and have chrome knives and steel guards to avoid trouble from the rest of the stones.

We aren't sure about a windrow turner. We got one to mount on the front end of a tractor; it works fine but we quit using it. A good high windrow cures out surprisingly well without doing anything — even if it gets rained on. I'm sure there will be times when we will want to turn the hay over next summer, but not as standard procedure for most of it.

It's a matter of real safety that the machine have an independent clutch as well as the levers which control the driving power (and steering) on the individual wheels. It's probably unimportant on level ground, but on a hillside you need to be able to control the drive power with a clutch.

WHEN IS ENOUGH?

Few will disagree that there was a time when teachers' salaries were too low. Of course, even then teaching may have paid many persons as well as any alternative they had. But, in general, it was difficult to attract and hold enough people in the profession.

Action by the State legislators and by school boards over the years has resulted in much higher starting salaries, in mandated increases in several steps, and in much higher salaries for teachers

and other staff members at the top of the scale. The taxpayers' contribution to the retirement fund, plus their share of the teacher's social security premium, brings the total value of the job to some 20 percent above the stated salary.

In the case of many of the schools in our area this makes the average teacher's position (with a Bachelor's degree) worth over $7,000 — this on a ten months (180 days) basis. Automatically, additional hours of college training qualify the teacher for extra return; in our case $300 per year more for holders of a Master's degree.

I'm not sure whether this is too much, too little, or about right as a general average for teacher's salaries and returns. I do know that for many individuals the returns from any other kind of employment would be much less. However, there is no doubt that if we want good teachers and good schooling for our youngsters we must be willing to pay well for it.

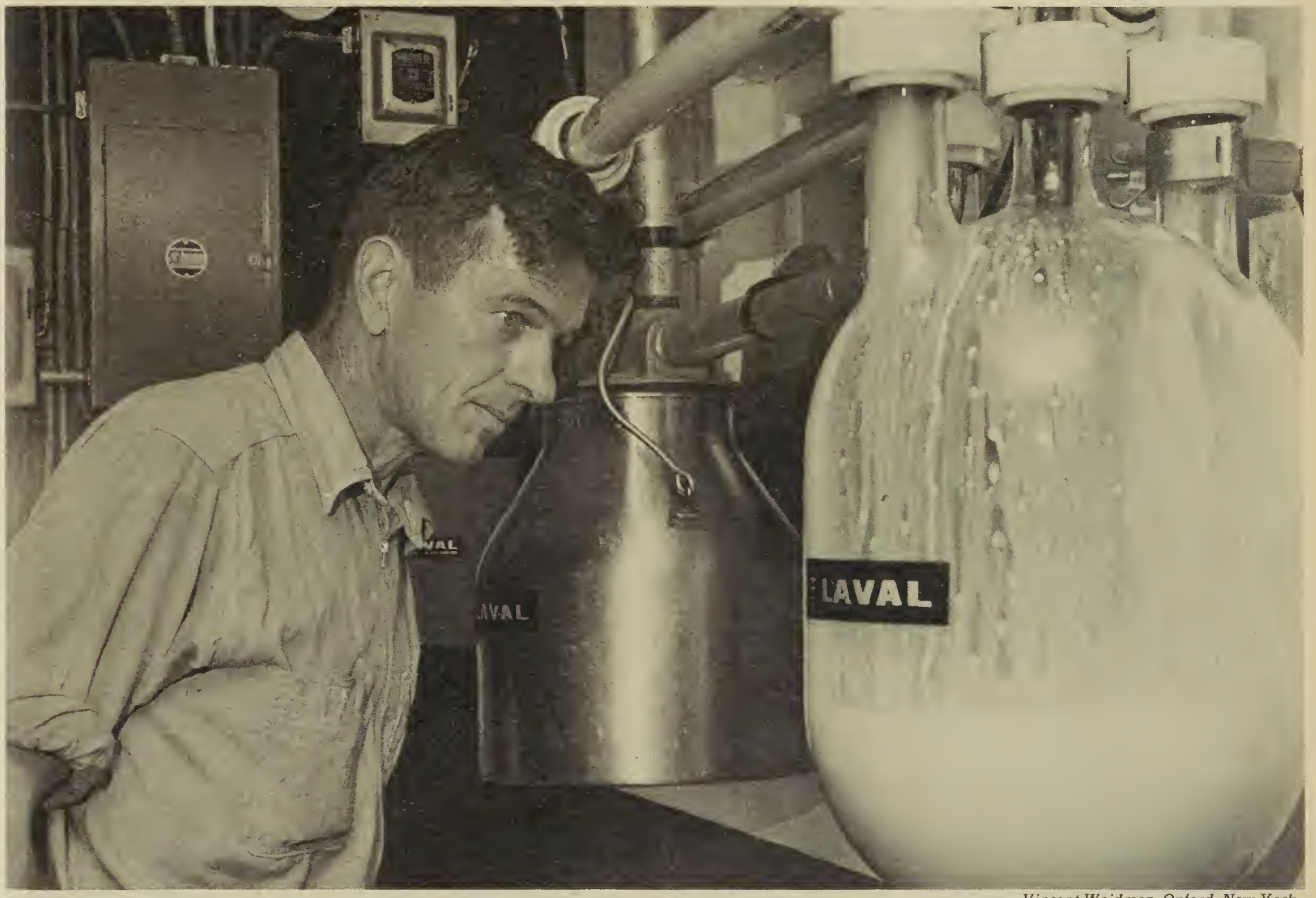
At some point, however, I think we are entitled to call a halt and take a look-see. For example: in addition to the proposed 5 percent increase in take-home pay the teachers' Association is asking of the Legislature, many school personnel groups are asking for $200-$300 raise in the salary scale at each step, plus the adoption of the State Health Insurance plan. This latter would involve the school boards in paying half the cost of Blue Cross and Blue Shield, plus a major medical plan for the staff members who are willing to pay their half. (At least 75 percent of the staff must sign up to put this into effect.) In addition, many of the staff will be getting mandated step increases.

All this adds up to quite a big grab. I begin to wonder if we aren't seeing teachers do what organized labor has done — get enough power to get what is wanted by a few without developing the responsible attitude by those same few which takes into account the public good as well as their own.

STAMPS TEACH

It's everyone to his own choice — and I've never been able to work up any enthusiasm for collecting and saving much of anything, including stamps. However, a resourceful teacher in our school has hit on something which is really good.

She has the youngsters save as many different cancelled stamps as may come in the mail to their homes. Each youngster then looks up the pertinent facts about the man, event, or place commemorated by the stamp. Then the stamps are mounted and a statement written about each. It is a good way to learn some history.



Vincent Weidman, Oxford, New York

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"We're also milking faster. In fact, we're milking 47 cows *one hour faster* with the new De Laval Combine*. This figures out to a savings of about two hours a day.

"Certainly, a good part of this saving is due to the pipeline system itself. However, I've noticed that we can milk each cow a lot faster with the new De Laval units. About 30% faster.

"Udder health is a lot better, too."

Since he changed to the new De Laval bucket units from a different make of hanging milker, Ferris H. Todd of Bovina Center also has noticed an improvement in teat and udder health. He says cows stand better for the new De Laval. No redness of teats or irritation.

Mr. Todd now ships 400 pounds more milk a day from his 60 cows.

We could go on and on, citing more examples of New York dairymen who milk faster, get better teat and udder health and more milk with the new *fast-milking* De Laval. Some right in your own county.

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(Continued from page 18)

than $25 per acre out of pocket, including outlets, A farmer can haul the rented leveler with his own three-bottom plow tractor with a hydraulic hookup.

Don Neuroth points out that loaning agencies such as FHA, PCA, and the Federal Land Bank are willing to make long-time capital type loans for drainage work, provided it's installed properly. Bankers are interested and willing to help farmers who have approved plans for drainage.

On the Joseph Amyot test plots at LaFargeville, Joe was getting only one crop in eleven years before the drainage beds were put in. As Bob Francis, Jefferson County SCS man, puts it, "Moving wet spots around to different parts of the field doesn't produce crops."

Thirty acres of the Amyot farm are divided into replicated plots to test the effect of surface drainage. Here are the 1963 crop yields:

Treatment	Nine different mixtures of alfalfa, birdsfoot trefoil, and timothy Tons dry matter/A.	Silage Corn Tons/A, 75% water
Non-bedded	1.2	11.1
Lower beds	2.0	10.4
Upper beds	3.3	20.7

The results speak for themselves! In 1962, Bob Lucey was able to harvest by machine only 50 percent of the corn on the non-bedded areas.

As I visited leading farmers in the four North Country counties, almost every one of them said: "What's the use of growing a bigger crop if you can't get it off the fields? Land surface drainage on my farm allows me to get big crops off the field every year."

St. Lawrence County

From one of the neatest barns I have ever walked into, Donald Merkley of Flackville pointed out three nine-acre fields which were ditched in 1961. Another nine-acre field next to the road was finished last fall. On this field, he had tried one big ditch through the middle, but it didn't work. Now he has beds in it from 100 to 120 feet wide.

In 1963, on the older beds Don could really see the results. He used to lose at least two acres of oats or seeding in each nine-acre field every year; now the heavy clay fields dry off just as fast as the lighter fields.

He got two cuttings of excellent alfalfa last summer, and figures that on the average he has about doubled his yields of hay. He gets up to 5 tons per acre per year now, plans to rent the District leveler this year and smooth down the high spots.

Cost Figures

His out-of-pocket costs ranged from $25 to $35 per acre, depending on how much dirt had to be moved. Outlet ditches were bulldozed by contract, he rented the County District land leveler, hauled by his own tractor. Half of the total cost was paid by ACP.



Dairyman Philip Radideau (left), Chazy, New York, and Charles Woodruff of Clinton County SCS in rank growth second-cutting alfalfa on bedded heavy clay land.

I expressed concern at the high cost per acre, and Don pointed out that it costs $45 per acre to seed a field down, aside from drainage, and now he is assured of getting a seeding. He has 20 acres more which need ditching, and they will be surface ditched. His land lies too low to the outlet for tile drainage.

Every farmer who has used the District land leveler has wanted to buy it. It was delivered in Canton for $1,200. To date, St. Lawrence County has about 100 acres of beds completed and 400 acres of land smoothing.

Bob Dwyer, Work Unit Conservationist, sees the present average farmer cost of surface drainage in St. Lawrence County as about $40 per acre. He has hopes of reducing this cost by getting the ditches farther apart where soil conditions warrant. Instead of 80 feet, anywhere up to 600 feet apart is feasible. Use of farmer equipment is another way to reduce cost.

Management Skill

Dairyman Floyd Fisher of Madrid is manager of the St. Lawrence County Soil Conservation District. Floyd feels that it takes a high level of management skill to make heavy clays produce. Drainage will allow a farmer to grow alfalfa or birdsfoot trefoil or both. With the increased quantity and quality, a farmer could realize $25 per acre per year from the drainage alone.

Floyd feels that "drainage will help ease the economic squeeze in the North Country. One way it will do this is by allowing farmers to put corn in on time so that it will mature."

Another top St. Lawrence County farmer is Bob Thompson, near Lisbon. A ten-acre field down near the railroad has given him drainage headaches for many years. A contractor used a bulldozer to build the ditches and his skilled operator graded Thompson's ten acres of beds in 40 hours. Bob will wait to see how it settles and then may rent the District leveler to finish off the job himself.

(Continued on opposite page)

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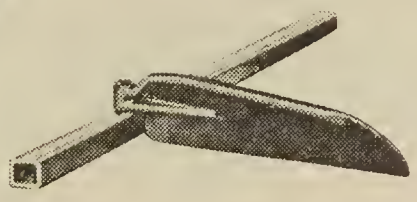
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DEALERSHIPS AVAILABLE IN SOME AREAS

(Continued from opposite page)

Dairyman Silas Eakins of Potsdam is on the USDA Soil and Water Advisory Committee of 18 men from across the nation. Silas says that lack of drainage is the reason why many St. Lawrence County farmers are going out of business. He sums up this way: "If you need drainage bad, you're licked until you get it!"

Franklin County

John Dwyer of North Bangor bedded 8 acres in 1961. He dug out his check stubs and found that he had paid a total of $312 or $39 per acre for the job. John works the farm with his father-in-law, Joe Flanagan. They figure it may take six years to pay off this investment.

Warren Mount of Fort Covington has 15 acres now ditched and bedded at about $35 per acre cost to him. He put in his first ditch in 1954, plans to ditch another 10 acres or so. His ditches are wide enough to work across with all kinds of farm machinery — as are ditches on all of the other farms we visited.

One problem is getting the "spoil bank" back from the ditch far enough not to have a ridge next to the ditch. It takes an experienced contract operator to run the bulldozer or grader.

Agricultural Extension Agent Bill Andrews and Malone GLF Manager Stuart Rickett independently came up with estimates that 40 percent of Franklin County cropland would respond economically to drainage.

Clinton County

Clinton County got an early start on land bedding in the North Country, some 300 acres or more in the past 10 years. At Chazy, Phil Rabideau is putting the finishing touches on a new house which he built partly as a result of increased yields from 25 acres which was surface-drained. He's getting 3 and 4 tons per acre now of alfalfa mixture where he used to get one ton of all grass hay.

Sam Louden at Champlain did the earliest land surface drainage which I ran across on my North Country trip. In 1945, he had a 40 acre heavy clay field in which the highest spot was 18 inches above the lowest spot. Sam says he got stuck with a "jag" of hay in July of that year and decided to do something about it.

The ditches laid out by SCS engineers were put in every 90 feet. He couldn't grow any alfalfa before, but he sure can now! Sam figures he has got back the money he spent and then some. On the Louden farm, a total of 135 acres have been bedded.

Oliva Landry of Beekmantown has bedded 20 acres. He went from a half ton of grass hay per acre to 3 tons of high quality legume mixture. He figures he still needs a land leveler to get pockets off the sides of the beds.

Getting Started

Herbert Bilow of Ellenburg Depot is just getting started on his surface drainage. He has 40 acres of heavy clay so flat there is only 1½ inches slope in 100 feet, according to the SCS survey. He says: "And I mean it's heavy, and slimy!"

Some people feel that Clinton County is sold too solidly on complete bedding vs. a somewhat less expensive system. Work Unit Conservationist Charles Woodruff, though, feels that it pays to do the job right. With the evidence he showed us, we can't argue.

Paul Zwerman, however, says: "Bedding is probably not the most desirable system of surface drainage for the North Country. It is an improvement, but some system of land smoothing or forming will be worked out in the next few years to drain soils at less expense than complete bedding.

"In Ohio, land smoothing combined with surface interceptor drains has provided adequate surface drainage even for intensive cash crop farming — and at a cost approximately ¼ of that required by the system of bedding." (Editor's note — The interceptor drains are ditches with sides slopes so gentle that equipment works across them.)

Depth Of Soils

GLF Agronomist George Serviss points out that depth of soil over bedrock in the North Country could be a limiting factor on installing surface drainage in some areas. He says that Paulding County, Ohio, is ahead of the North Country on land drainage. There are 125 land levelers in Paulding County. That part of Ohio might well be visited and studied by farmers who plan to do surface drainage.

George also points out that there are wonderful crops on heavy clay soils west of Buffalo in southern Ontario. He has seen excellent tomatoes growing on heavy clays in that part of Canada.

My own footnote is that "heavy clay farmers" of New York State and New England do not have generations — only a few years — to get on the forage crops-high-yields-from-surface-drainage bandwagon!



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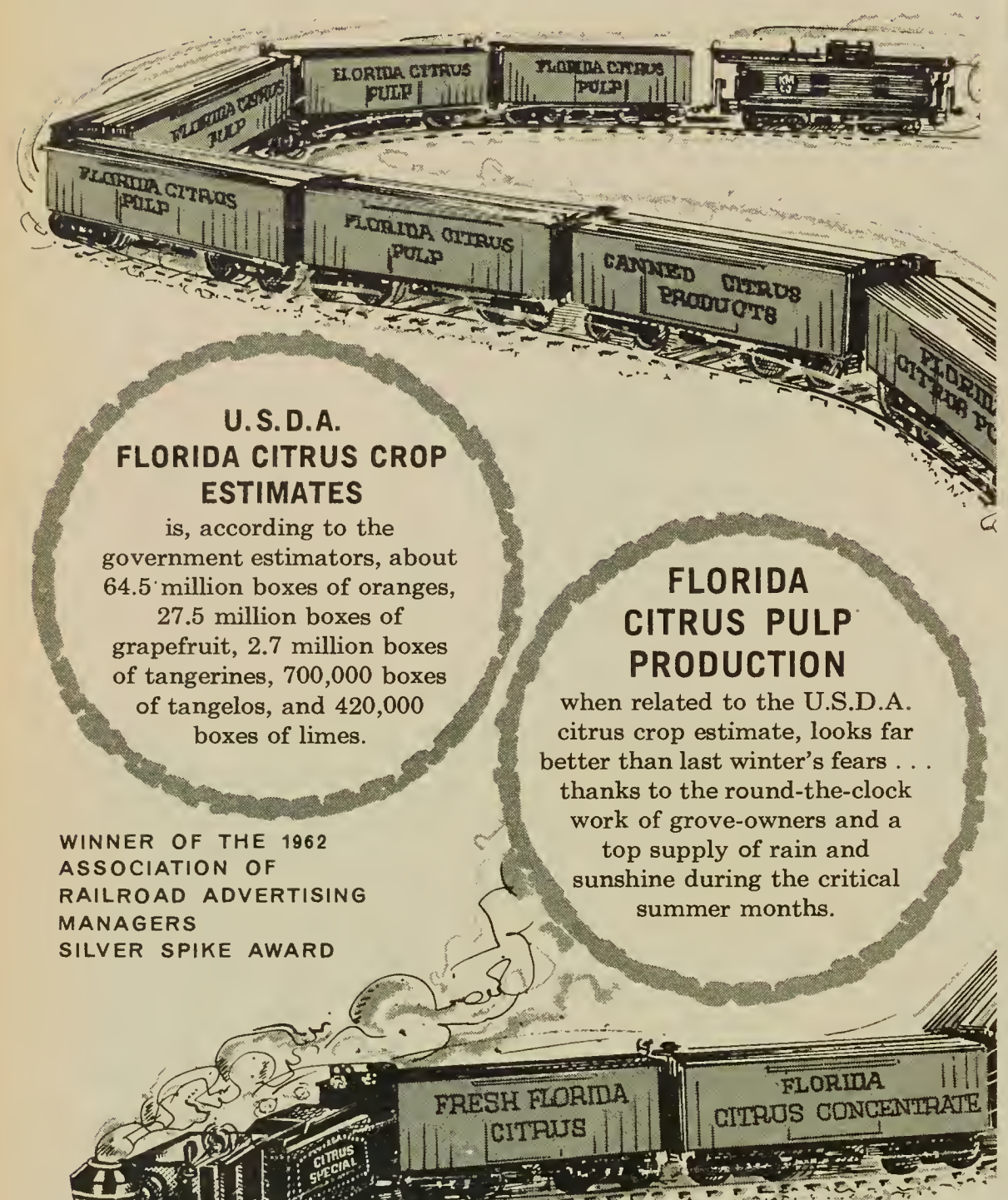
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PERSONAL FARM EXPERIENCE



In the February issue we ran, under the Personal Farm Experience heading, an item entitled "Dairy Ideas," but we dropped the ball and left off the name at the end of the item. Above (left) Floyd Dorn of Ithaca, New York, the dairyman who uses his power elevator to handle both chopped hay and corn silage.

RECREATION PROJECT

We have been developing a recreational area on our farm and have found that it is not nearly as simple as it sounds. First of all, a community is likely to fear such a project because it thinks a honky-tonk will develop in the area and flood it with undesirable persons. Therefore, there is the job of checking local zoning ordinances; in our case we had to get an ordinance change to allow our development.

Attractive layout is a must, and there is a great lack of technically trained people to help with this. The only answer I know to planning is to walk over the site a hundred times and then develop plans that will adapt to the terrain and other existing conditions. Finally, be prepared to spend ten times as much money on the project as you originally intended.

In my opinion, there should be precise regulations concerning allowable density. We have five camp sites per acre in our camp ground, but there are official recommendations calling for eight to ten per acre. I have seen 25 sites per acre; this situation leads to rural slums that discourage communities from allowing recreational development.

I am convinced that people should have plenty of room for their camp site if you're going to call it recreation. Camp owners need to supply recreation rather than licking their chops over the potential gross indicated by multiplying too many sites per acre times the acres available.

I am convinced that the private recreational development should have as its greatest attraction some specialized facility — riding trails, ski slopes, etc. The public parks usually do not have such a special attraction.

I am also convinced that the camp itself should represent a small percentage of the total recreation area. The larger percentage will be devoted to providing lots of room for hiking, archery, and other recreational activities.

I am a farmer, but still believe that farmers are generally one of the least well-equipped groups to deal with the public. It is sometimes a real job, but very essential, to learn how to get along with all kinds of people and be "consumer oriented" in doing so.

As an interesting sidelight, I should mention that our real estate taxes went up 1200 percent after the establishment of our commercial recreational area! — **Henry Renouf, Robin Farm, Belchertown, Mass.**

HERD HEALTH

Some time ago we entered into an agreement with a veterinarian for a continuing herd health program. The payment schedule calls for an hourly fee plus charges for drugs administered. The veterinarian checks the herd once a month; we think it pays off as a preventive program.

Concerning mastitis, we have some problems like everyone else. We once used three milker units per man and carried the milk besides. Then we switched to two units per man; in the new barn, though, we're again using three units per man because the dumping station takes care of carrying the milk.

We use a 1-1/4" vacuum line into which is built a vacuum reserve system consisting of two water tanks (a 30 gallon and a 40 gallon). This reserve system prevents vacuum fluctuation and gives us a better job of milking which in turn helps in the prevention of mastitis.

We have moved grain intake levels up before a cow freshens. This is in an attempt to meet the nutritional requirements of freshening and help prevent ketosis. In addition, we run our own urine tests to detect ketones, and treat a cow ourselves if the level gets excessively high.

We think that dairymen should be in a position to do this kind of treatment themselves in an emergency, but we also think it is important to avoid biting off more than we chew. A veterinarian's help is essential over the long pull for herd health. — **Dwight Tiffany, East Hampton, Mass.**



The machine is a gas chromatograph with an almost unbelievalbe sensitivity to chemicals. (Photo: Niagara Chemical)

NOISY SUMMER

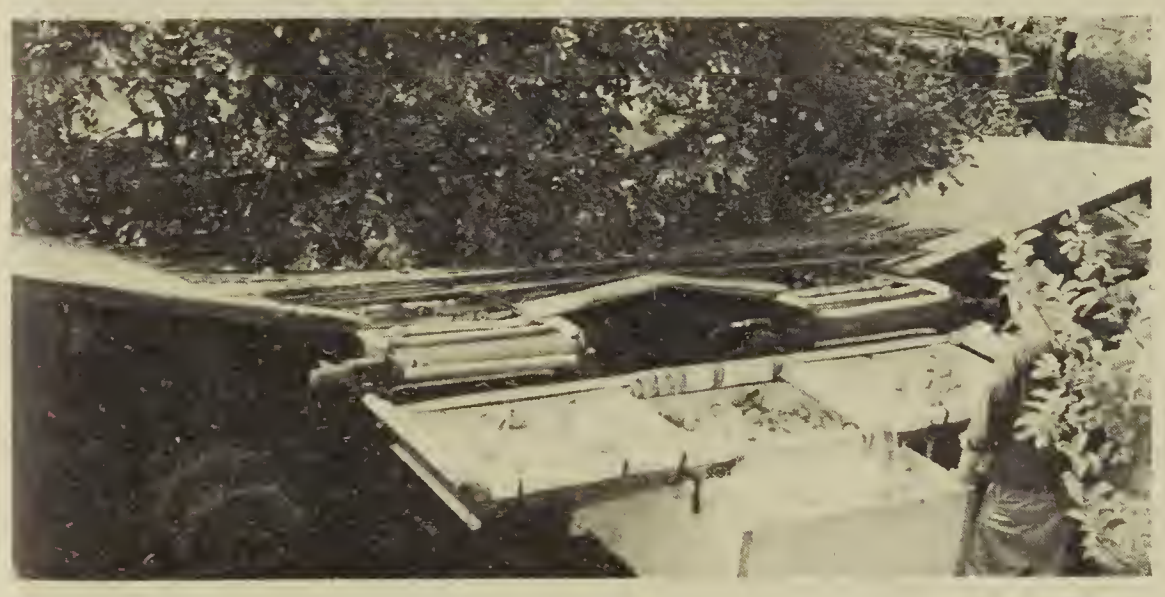
Better be prepared for hearing a bit more noise in the orchards and fields this summer — the noise of insects chawing their way through the foliage. It's getting tougher all over for the folks who manufacture insecticides because of recent developments in regulations and in residue detection equipment.

The gas chromatograph is available for the detection of insecticide residues; it is able to spot one part per billion, which is comparable to literally finding that needle in a haystack. If you have walked through the cabbage patch during the growing season carrying a can of endrin, this contraption will spot it on the leaves! Zero tolerances for insecticides aren't practical any more.

Materials such as dieldrin, heptachlor, chlordane, and aldrin are on somewhat shaky grounds because of their persistence in either soil or crop applications. Persistence is good from the growers' standpoint because the chemical stays a long time to do its work on pests, but this characteristic is bad as far as the Food and Drug Administration is concerned because of the possibility of residue.

Endrin caused a big scare in the Long Island cauliflower business last fall, and another cranberry incident was averted only by the fact that the New York State Department of Agriculture and Markets, plus the folks at the College of Agriculture at Cornell, were on the ball. Endrin, although it is one of the most effective insecticides available for control of cabbage looper, has been pulled off the New York State recommendations for crucifers — replaced by parathion, which will do the job but must be applied more often.

There has been a fight among federal agencies concerning who should oversee the labeling of new insecticides, and there is stirring in Congress to further tighten up pesticide regulations. Let's hope that cool heads make the decisions rather than emotion. — G.L.C.



Apples move from catching frame and conveyor belts into boxes, which have false, padded bottoms that move up and down. Apples fall only a few inches, eliminating danger of serious bruising.

APPLE-CHERRY HARVESTER

Last fall a thousand bushels of apples were shaken off the trees at the Cohn Farm, Sodus, New York, by Cornell University's mechanical apple-cherry harvester.

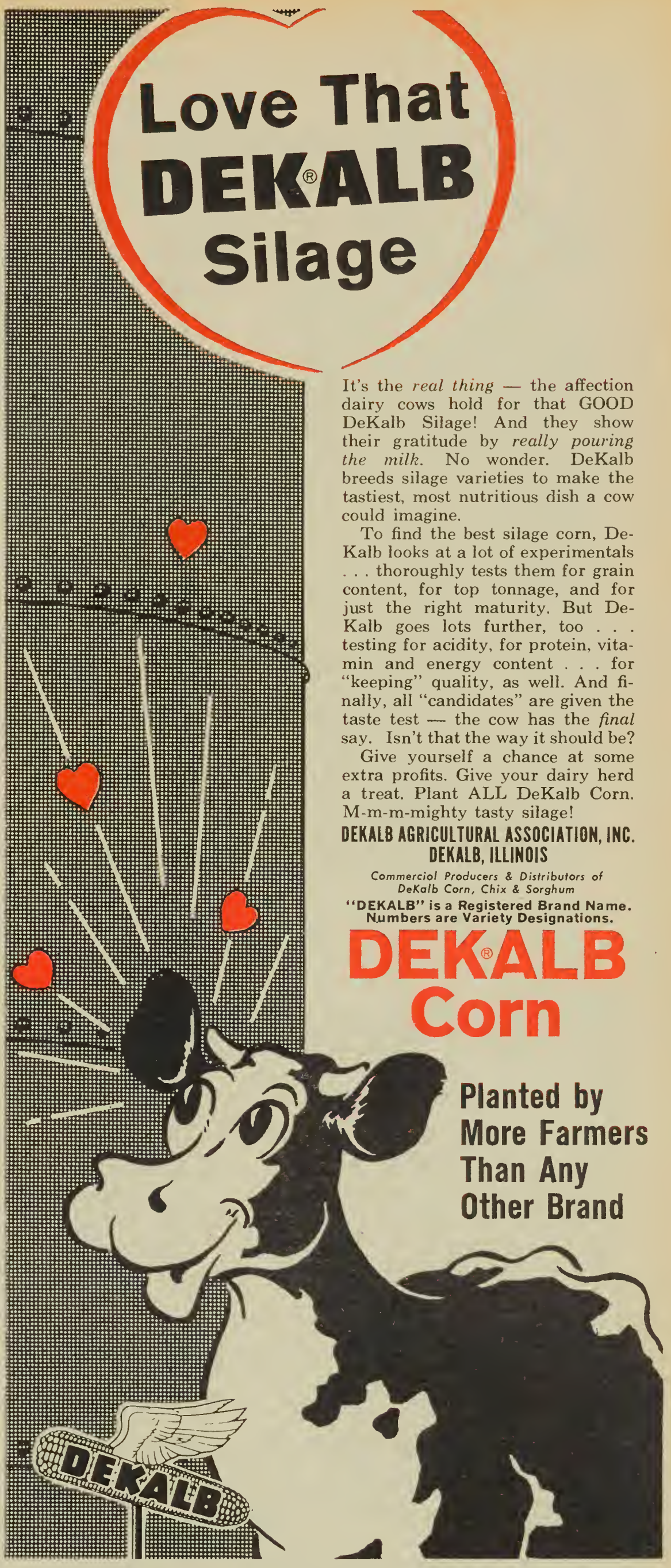
Rhode Island Greenings were chosen because they are the chief variety used in New York State for processing, and also because they are somewhat subject to bruising. Rome apple trees were the other variety selected. They bear apples on the terminal ends of long, willowy branches which might have caused shaking problems.

Two layers of thin nylon fabric strips have been stretched across the main conveyor belt to cut the speed of falling apples so that they do not bruise when hitting apples already on the belt. Also, small cross-conveyor belts are used at the end of the large conveyor to permit gentle transfer of the fruit to 20-bushel boxes.

The boxes have false padded bottoms which move up and down hydraulically, preventing the apples from dropping more than a few inches when entering.

In case of cherries, a flume with running water is used to carry the fruit into tanks.

Tests and evaluations of the processed fruit are continuing at two commercial firms and at Cornell's Food Science section at the Geneva Experiment Station. To date, apple sauce tested meets the same high standards as sauce from hand-picked processed apples.



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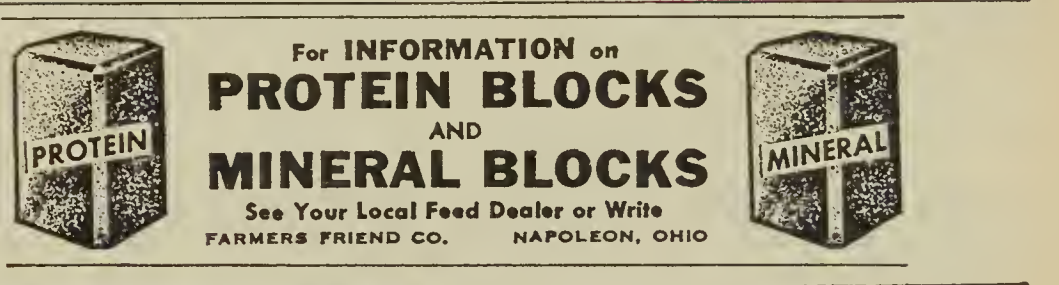
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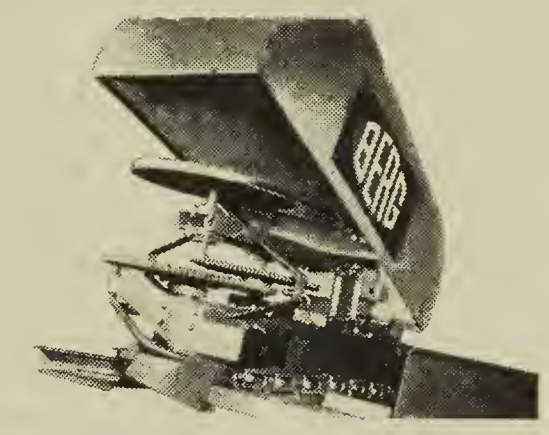
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What do you get when you cross a parrot and a tiger? "I don't know. What?" "I don't either, but you better listen when it talks."

4-H DAIRY CHAMPIONS

by D. A. Hartmann*

Each year (in cooperation with the State Dairy Breed Associations) the New York State Extension Service honors six 4-H members who have excelled in over-all dairy achievement. Here is a summary of each winner's achievements:

Phillip J. Bennett, Hornell, Steuben County, represented the Holstein breed. Phillip started 4-H Club work in 1954 with a grade Holstein calf. In 1956 he replaced his grades with a registered Holstein heifer, and has since developed his herd to 33 registered animals.

He has exhibited at the Steuben County Fair for seven years, as well as at the New York State Exposition and the New York Artificial Breeders' Show at Ithaca. His cattle have won many times, and Phil was named Master Showman at the New York State Exposition Junior Show in 1963.

Elaine Tuttle, North Bangor, Franklin County, was the winner in the Ayrshire class. She started 4-H Club work seven years ago, and has accumulated a herd of nine cows and five younger animals. Four of her animals are descendants of her first calf (given by her parents), and one is a descendant of the second project calf.

Elaine's efforts might be summarized by saying that she has done an excellent job of fitting and showing her cattle at the county fair and State Exposition; she participates in dairy cattle judging, record keeping, and has given excellent demonstrations at county and district levels.

Richard Stephens, Manlius, Onondaga County, owns eight cows and six younger Brown Swiss. It was only natural that he should select this breed, Brown Swiss cattle having been on the home farm for the past 33 years. He is the second member of the family to receive recognition as a State Brown Swiss achievement winner.

Mrs. Lyn Huntley Mitchison, Columbia County, Guernsey winner, started in 1955 with a calf given by her grandfather, Earl S. Williams, North Chatham. Today, Lyn owns six animals and has nine in partnership. Winning runs in her family, too; in 1959 her brother Alex was named State achievement winner.

Lyn is an excellent showman and has taken a large share of ribbons. She also became interested in keeping and understanding dairy records, and teaching the subject through demonstrations. Today she ranks as one of the top in the State in both categories.

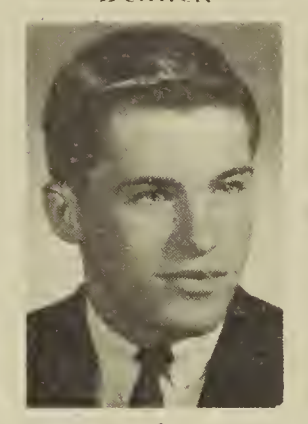
George Wilson, Stanford, Columbia County, started his Jersey herd in 1957 with a heifer calf. Now he has a herd of ten cows and four younger animals, five of them descendants of his first project calf. Last year he was the District Record-Keeping winner, and is one of the best dairy showmen in the State. George says:



Bennett



Tuttle



Stephens



Mitchison



Wilson



Brew

"The money I have won by showing my cattle at fairs has put me through two years of college at Cornell. When I graduate I plan to return to the farm and develop my herd."

James A. Brew, Bergen, Genesee County, became interested in Milking Shorthorn cattle seven years ago. He owns five of them, four of which are descendants of his second project calf.

The Brew family have been leaders in this State with Shorthorns for many years, so James' choice of breed was natural. He enjoys showing his animals at county fairs in the State, and also at the State Exposition.

Competition Keen

Closely paralleling the achievements of the State champions were the following competitors:

Holsteins, Richard Beaumont, Chenango County; William Bossard, Steuben; Peter DeBlock, Jr., and James A. Detch, Orange; Robert Kimmey, Otsego; and Robert L. Thompson, St. Lawrence.

Runners-up for the **Ayrshire** award were Sharon Stanley, Monroe County; Paul Luce, Chenango; Sarah Sine, Tompkins; and Marilyn Noonan, Dutchess. **Brown Swiss,** Dudley Goewey, Rensselaer; John Denesha, St. Lawrence; Gordon DeMay, Ontario; and Donald Fox, Wayne. **Guernsey,** Janet Perham, Franklin; Russell I. Subject, Allegany; Carol Ann Calhoun, Rensselaer; and David Martin, St. Lawrence.

Contenders for the **Jersey** award were Neal Orr, Chenango; Donald Dumas, Franklin; Carlton Osborne, Steuben; and Alan Clark, Cayuga. **Milking Shorthorns,** Sharon Vaadi, Jefferson; John Engelbrecht, Oneida; and Richard Patterson, Jr., Lewis.

*4-H Club-Livestock Specialist, Cornell University

News and Views from

NEW YORK AND PENNSYLVANIA

Will He Switch? – When Stanley Gurda, Pine Island, New York, was nominated as New York State's "Outstanding Young Farmer," he received a purebred Jersey calf as a gift from Elsie, the Borden cow. Mr. Gurda and his brother William operate produce and cold storage facilities at Pine Island, and produce onions, celery and lettuce on 600 acres of muck land. But if he ever wants to switch to dairying, he has the nucleous of a herd!



Retiring – On April 1, Harold A. Willman, professor of animal husbandry in the New York State College of Agriculture, will retire after 35 years work with youth and 4-H. Under his guidance 4-H animal projects have increased from 1,564 to 13,000; leadership training and herd building have been stressed through a strong program of record-keeping, demonstration work, showmanship, and judging.



Professor Willman has received wide acclaim from county 4-H clubs, breed associations, and other organizations for his devoted service; his "4-H Handbook" and numerous folders are in great demand nationally and also in many foreign countries.

First of Its Kind – "Everyone was satisfied – we feel that this is a very successful beginning of a new service that will benefit breeders of Holstein cattle." This was the verdict of Sale Chairman Earl A. Eaton, of Pitcher, New York, on the first Southern New York Holstein Breeders' Sale held at the Empire Livestock pavilion at Greene, New York. Fifty-seven head were sold; the top selling cow bringing $550.

Constitutional – In an action in the Supreme Court of Albany County a decision was rendered holding the Apple Marketing Order constitutional in all its aspects. An action had been brought by Costanzio A. Trapani.

Tire Safety – Starting January 1, New York State is enforcing tire safety standards, with maximum penalties for violations running as high as a $50 fine and 15 days in jail. Tires must have one-sixteenth of an inch tread; be without fabric breaks, or cuts longer than an inch or deep enough to expose the tire cord. A tire is considered unsafe if it has bumps, bulges or knots reflecting a breaking down



of the tire structure. Bare spots on the tread area that reduce traction also disqualify a tire.

New Slate – Officers and directors for 1964 of the New York Association of County Agricultural Agents are Russell Hodnett: Watertown, president; Ernest Cole, Ithaca, vice president; Gilbert Smith, Penn Yan, past president; Leslie Nuffer, Fort Edward, secretary-treasurer. Directors: William E. Worth, Norwich; Russell G. Parker, Mount Morris; Donald A. Thompson, Troy; Earl D. Howes, East Aurora; Norman J. Smith, Mineola; and Ralph Geiger, Oswego.

Report Available – County agents, DHIA supervisors and Extension dairy specialists have available a copy of a report showing the A.I. sires used by the three artificial breeding organizations active in the State. The report lists the sires in the order of milk production and separates them into the following categories (1) living sires; (2) dead sires whose semen is still available from the A. I. stud; and (3) those that are dead and have no frozen semen available.

New Program – Careers in commercial farming and in businesses serving farming will be stressed in a new two-year program opening this fall at The Pennsylvania State University. The training will award an associate degree in agricultural technology with a major in agricultural business. Details may be obtained from the Dean of Admissions, The Pennsylvania State University, University Park, Pa.

Civil Defense – Through its Farm Counseling Service, the New York State Civil Defense Commission will survey farm buildings to determine the best location for an animal fallout shelter, and make recommendations for a family fallout shelter. A number of publications are available upon request.

YOUR GLF CONSUMER PRODUCTS REPORT

why you can trust GLF *Unico* Powercruiser and Powerlux tires



'Road Runners' torture 4 famous tires in 17,000-mile test at speeds up to 85 mph. We Won!

Named after the swift Chaparral of the rugged Southwest, the "Road Runners" are a group of skilled drivers who tested the GLF *Unico* Powercruiser and three of the best known passenger car tires over 17,000 miles of hot, winding, high-speed roads. We won!

The confidential and unbiased report from a well-known tire test fleet, pointed out that the 7.50 x 14 tires of the three competitors suffered numerous undercuts, torn sipes, tread separations, and cracking in the grooves.

The GLF Powercruiser showed scuff marks in both shoulder ribs. That's all.



This undisputed leadership is no accident. The GLF Powercruiser is unsurpassed in tread depth, width, construction. Its rugged all-nylon carcass has a road-gripping tread of seven ribs to withstand the heavy rigors of modern turnpike driving.

It's hard to believe that there is a tire superior to the Powercruiser. But there is. And we have it.

The new Powerlux is a premium treaded tire with $^{12}/_{32}$" depth at the center line, $^{11}/_{32}$" at the shoulder—more than 10 percent heavier tread construction than competition. This protection against impact breaks is good for the life of the tire.



New full-strength Unilon (nylon) cord helps prevent tire failures due to bruises, heat buildup, moisture, and flex-strain. And yet the priceless Powerlux costs just a few dollars more than Powercruiser. You can't lose either way.

Drive your Powercruiser or Powerlux 10, 20 or 50,000 miles. Keep them one year or ten. Your GLF guarantee protects you against defects and road hazards for the full life of either tire.*

You can trust the safety of family driving to either Powercruiser or Powerlux—the tires built to perform when and where it counts. Available only at your GLF. *Cooperative GLF Exchange, Inc., Ithaca, N. Y.*

***If You Live in New York State** law prohibits the operation of a car with unsafe tires. Tread depth is one measurement of your tire's fitness. Strength is another. And GLF Unico tires have plenty of both to give you extra miles of safe driving. For a free copy of the regulation governing unsafe tires, send a card to GLF Tires, Terrace Hill, Ithaca, N. Y.*

GLF Quality

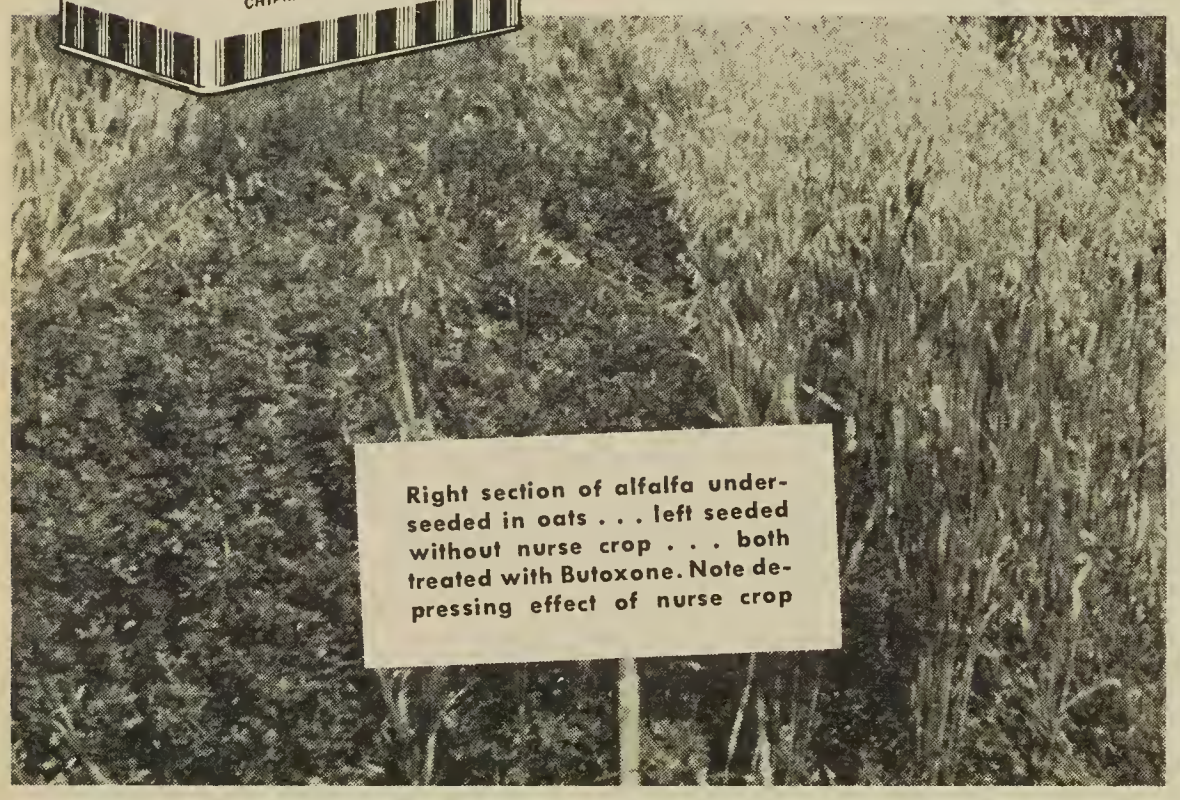
QUALITY CONSUMER PRODUCTS

*pro-rated, based on remaining tread depth

How to Get a Bumper ALFALFA Yield – 1st Year



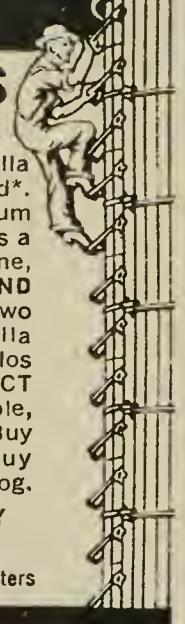
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Does the work of six good men — handles square or round bales gently, even on hillsides—won't break wire or twine, or damage bales.
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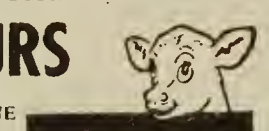
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JOHNNY REB IS AFTER US AGAIN!

Editor's note — this article has been adapted from an excellent analysis prepared by the New York State Department of Agriculture and Markets and sent to American Agriculturist by Assistant Counsel Thomas Conway.

IN RECENT years changes in the freight rate structure on grain have greatly favored the South. The poultry producers of the Northeast have felt the most immediate impact of the change. They have lost a large share of their natural markets in the East to southern poultrymen who have gained a commanding competitive position largely through lower transportation costs. This differential in the cost of moving grain from the Midwest will inevitably affect all the livestock industries of the Northeast.

Some Background

The important developments in the grain rate structure which have favored the South may be summarized as follows:

1. In 1959 the United States District Court compelled the southern railroads to offer lower freight rates on grain being shipped to interior points in the South from cities on the Tennesee River (a waterway, by the way, heavily subsidized by the Federal Government.) This enabled southern producers for the first time to take advantage of low-cost water transportation all the way from the Midwest to Chattanooga and other southern ports. Prior to this, high local rates on the rail leg of the shipment inland from the port cities had nullified any savings resulting from the use of low-cost water transportation.

2. In response to strengthened competition offered by water carriers as a result of this court decision, and also to meet increasing motor carrier competition, the Southern Railway System developed the "Big John" freight car. This is an oversized covered hopper car specially designed for large scale movement of grain at a cost competitive with water carriers. As a result of this development, the Southern was able to reduce its rates by about 60 percent for grain shipped in multiple-car lots to points in the Southeast.

3. The rate reduction of the Southern, effective since May 11, 1963, forced the grain consumers of the Delmarva Peninsula to bring their grain in from Southern territory rather than by way of the Pennsylvania and B & O lines. In response to this development, the Pennsylvania and B & O Railroads have published new reduced rates on corn from origins in Ohio to destinations in Delaware, Maryland and Virginia.

Competitive Advantage

The successive developments outlined above have placed the southern and Delmarva agricultural interests in a commanding position of strength with respect to their northeastern counterparts. The Interstate Commerce Commission has said that the grain freight rate structure "possesses many of the characteristics of a huge blanket in which a tug at one end is felt at the farthest extremities."

Low cost water transportation from the Midwest is available to both the Northeast and the South. Grain can move to Buffalo by way of the Great Lakes and to the South by way of the Mississippi and Tennesee rivers.

Until recently this geographic fact had little economic significance. Grain arriving at port cities in either area had to move inland to points of consumption by rail. The railroads charged a flat local rate on this leg of the journey. The local rate was so high that the savings on the water leg of the journey were lost. In fact, it cost more to ship by water-rail than it did to ship grain all the way from the Midwest by rail.

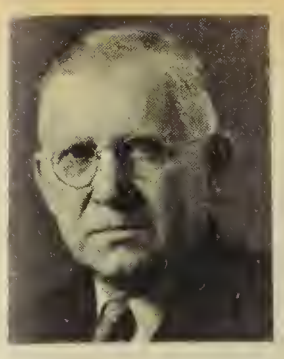
Court Decision

The court decision which changed this for the South is known as the "Arrow" case, forcing the railroads to ship grain from barge terminals at a rate that would allow shippers to receive benefit of low-cost water transport. The principle developed in the Arrow case may provide some relief for northeastern agriculture.

The Great Lakes provide a natural waterway to Buffalo, as the Tennessee river provides a waterway to Chattanooga. But shippers of ex-lake grain beyond Buffalo lose economies of water shipment because they must pay flat local rail rates east of Buffalo. As in the Arrow case, all-rail joint through rates from the Midwest are made available by the connecting rail lines.

There are no joint through rates for the lake-rail route. If the railroads were compelled to offer to ex-lake traffic a rate, substantial savings could be made on the rail leg of the journey.

On January 30, representatives from the Northeast attended a hearing held by the Traffic Executives Association of Eastern Railroads at Chicago. Commissioner of Agriculture Joseph Gill of Connecticut spoke on behalf of the Departments of Agriculture of all the northeastern states. Professor L.C. Cunningham, of the New York State College of Agriculture at Cornell University, presented information on the dimension of the use of shipped-in grain in the region. Many other people — about 60 in all — testified. There was every indication that this situation is red-hot!



INCREASE IN FARM WAGES

by Amos Kirby
New Jersey Editor

The Farm topics most discussed in New Jersey during recent weeks have been (1) higher rates of pay for Puerto Rican workers; (2) the labor forum held during Farm Week; and (3) the possibility that the New Jersey Farm Bureau will seriously consider the establishment of a farm-worker training program among unemployed youth.

Wage Rate – There will be an increase in farm wages for Puerto Rican workers starting this spring. The 1963 guaranteed wage rate of 90 cents an hour goes to 95 cents until September 6, when it will be automatically raised to $1 an hour. For nursery workers the wage rate will be $1.05 per hour, starting with the spring arrival.

There is also an increase in the rate for cutting asparagus – 3½ cents per pound (up from the 3 cents paid last year) with a guarantee of the full 95 cents per hour. This applies to the small amount of asparagus harvested early in the spring, when it may be difficult to make the guaranteed wage rate.

LABOR FORUM

On the suggestions of Secretary of Agriculture Phillip Alampi the Farm Week Committee tried out a new approach to farm group meetings. They decided to experiment with forums.

Labor Speaks – In the forum entitled "Agriculture Listens to Labor," the speakers were Joseph Beirne, vice-president of the AFL-CIO and president of the Communication Workers Union, and Commissioner of Labor Raymond Male. Mr. Beirne is concerned over what automation is doing, and the unemployment problems it is creating. Automation cannot be stopped, but he believes in the 35 hour week, with double pay for overtime; he also advocates "make work," and government retraining of workers.

Local Level – Commissioner Male brought the unemployment automation problem down to a local level. (I would like to insert at this point that Mr. Male has a very fair and broad approach to the labor problems on New Jersey farms.)

He is deeply concerned over what can happen to New Jersey agriculture due to low-cost wage rates being paid in competitive areas. Other areas are paying not much more than half of the minimum rates, while New Jersey growers are paying about the highest – and above the minimum rate.

Mr. Male's other concern is the high rate of dropouts in high schools, and this applies to every community. He stated that 30 percent of the children are dropping out of high school although 90 percent of available jobs call for a high school education.

FARM WORKER TRAINING

The Farm Bureau has taken the lead in a farm-worker training program for school dropouts and unemployed teenagers. C. H. Fields, Excutive Secretary, has suggested to Mr. Male that a group of responsible leaders would be willing to sit down with other interested groups to determine what might be done to employ some of the growing force of unemployed school dropouts on farms.

Comment – Joseph Alampi, Franklinville, has told the writer that down in Cumberland County the Federal-State training program for unemployment on farms is finishing up its second year. In 1963 those who took part found farm jobs, and for the most part proved to be excellent tractor operators. Mr. Alampi is most enthusiastic over the results.

CONGRATULATIONS!

At the recent New Jersey Farm Week, Amos Kirby was honored with one of the four Distinguished Service Awards presented by the New Jersey State Board of Agriculture. His citation read in part:

"You are known as a 'farmer's reporter' because of your rare ability to assemble the basic facts and to present them in such direct and simple style . . . Thanks to your diligence and industry, countless thousands of non-farm readers have today a fuller appreciation of agriculture and the role of the farmer. Both groups have gained a new concept of their interdependence, and a mutual understanding of their common interests."

We of American Agriculturist take this opportunity also to congratulate Amos, and to thank him for his more than thirty-five years of service to the publication and its readers.

WHAT'S NEW IN SEED?

quite a few things you should know about

ASK YOUR GLF SEEDSMAN



What Is A "Strong" Wind?

Terms used in official forecosts	Miles per Hour	Wind effects observed on lond	
Light	1-3	Calm; smoke rises vertically. Direction of wind shown by smoke drift but not by wind vanes.	
Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accompanied by widespread damage.	

Whatever the wind, do "blow in" to your supplier for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens. And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

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Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

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Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.			
Olean	WHDL	1450 kc.			

Northeast Radio Network

Ithaca, New York

RECIPE for an ACCIDENT

by BURL HUNT

Housewives may argue the merits of their favorite recipes for certain foods, but there should be no doubt about the perfect recipe for an accident. It is very easy to find and mix the necessary ingredients. Most of them can be found in any home, for example:

- a poorly lighted stairway
- a curious, unsupervised child
- a cloth saturated with furniture polish and stored in a closet
- a loaded gun in the house
- sharp tools left within easy reach of children
- an electrical cord with bare spots on it
- a loose rug at the top of a stairway
- detergents and poisons stored under the sink

These ingredients and many others can be mixed together for a perfect accident. It is even possible to have a creditable accident with only one of these ingredients.

American homes are the scenes for about one-half of all the injuries and one-third of all the accidental deaths that occur each year. Many of these injuries and deaths involve small children, and adult negligence in their supervision may be blamed for hundreds of the accidents.

Parents must always be one step ahead of their children, anticipating what they are likely to do that will cause them harm. After identifying the hazards, parents should eliminate the dangers, or as the children grow older, make them aware of the dangers too, and teach them to avoid them.

In most homes it would be possible to die from burns, suffocation, falls, poisons, firearms, explosions, or electrocution. Parents in the Stone Age had some advantages over those of us living in this modern era. Their children had no sleeping pills to get into, no plastic bags to put over their heads, no poisons to drink, and no electricity to injure them. Not too many recipes for an accident were available to cave dwellers!

With the increase in population and a shortage of caves, today's parents are forced to rear their children in dangerous homes. Our modern way of life emphasizes the need for good supervision of young children, and the removal of conditions that provide the ingredients in a recipe for an accident.





Add one curious little girl to dryer, mix well – have ambulance waiting.

Leave sharp tools within easy reach of children; keep a first aid kit handy.



Fill kitchen cabinet with detergents and poisons, put children to bed for afternoon nap, go next door and visit with neighbor.



Add one small unsupervised child to a kitchen – and you have a perfect recipe for an accident.

Editor's Note: Dr. Burl Hunt is a member of the Department of Education at Kansas State University, Manhattan, Kansas.

YOU CAN GROW HOUSE PLANTS

by Nenetzin R. White

The truth is that you can grow in your home any kind of plant that you desire. True, some are difficult and have special requirements, but as you become more interested and expert, it will really be fun to grow these unusual, exotic plants. However, let's start with average conditions for the many colorful, easy-to-grow plants that are available.

The average foliage or flowering plant needs a good rich soil mixture. Most potting soils on the market are suitable, but better yet, mix your own. There are innumerable recommendations, but one of the newest used by many growers also seems to be one of the best. This is garden soil, perlite, vermiculite, and peat moss. Start with half garden soil or loam, and make the second half equal parts of the other three materials. This soil may be varied to suit the needs of different types of plants, too.

Sterilizing the soil is important. Before mixing, simply put the soil in a 250 oven for two hours. The other materials in the mix are sterile, so it is advisable to add a little fertilizer also. The new granular fertilizers are similar to the "spansuled" cold pills and will release food over a long period of time without burning the plant. Special plants have different requirements, such as a very sandy soil for cacti, and osmunda fibre or some such chopped material for orchids. You can get recommendations from a grower or by reading in your library.

More About Fertilizers

A complete water soluble fertilizer is often used every few weeks. These are good, but for the slow growing plants, or those that are not repotted often, we find an acid salt building up on top of the soil. This requires thorough flushing from the top. A regular house plant fertilizer can be used at the rate of one teaspoon per 5-inch pot. You can incorporate it in the potting mix, or put it on top and water it in.

Azaleas, hydrangeas, and gardenias require a slightly acid soil. You can acidify a 5-inch pot, for example, by simply adding a teaspoon of flowers of sulphur. There are many products for acidification on sale at your garden store.

Type and Size of Pot

Although clay pots are not essential, they are porous and allow air to enter the soil mixture, which is a "must" for growth. Ceramic and metal containers do not evaporate water as readily, but neither do they allow for good air circulation in the soil. More water is required, of course, if your plants are in clay pots.

Too large a pot will often smother root growth, and too small a one will stunt the roots. Experience and a little experimenting will shortly tell you what sizes to use. For example, a "baby" African Violet of four or five leaves will do very well for some weeks in any 2½-inch pot.

Water Often

Frequent light waterings are far better than occasional soakings. The soil should never be allowed to dry out, except for a few exotic succulents and cacti. A wick or self-watering system is good. Fiberglas wicking is best and should be inserted in the pot with about an inch-and-a-half unraveled and placed where it will be in contact with roots of the plant. (Remove drainage material such as pebbles or broken pot pieces). The pot is then placed over a container of water and the remainder of the wick immersed. This container of water must never be allowed to go dry. Plants with a large leaf surface will, of course, require the most water. You can often leave plants for weeks with no attention if the water reservoir is ample.

Most plants thrive in a humid atmosphere of 35 to 60 percent. Daily spraying of the foliage, a tray of pebbles and water under pots, and many other systems help keep up the humidity. Best of all is to maintain high humidity in the house or plant room. Besides being good for plants, a relatively high humidity is also good for you and your furniture. Cool night temperatures (as low as 60°) and medium daytime temperatures (about 70°) are best. If the temperature is high, it is imperative that the humidity be high also.

Lighting

Nearly all flowering and foliage plants require direct sunlight, and during the winter an east or south window would naturally be best. Some plants, such as amaryllis, should be set back from direct sunlight as soon as they bloom. This will prolong the blossoming period. A few plants will grow in shade, for example, sansevieria, peperomia, philodendron, ivy, and many succulents. Supplemental lighting, incandescent or fluores-

(Continued on page 39)

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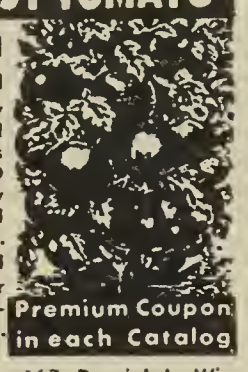
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VISITING

with

Home Editor Augusta Chapman

SNOW WAS falling gently the morning of January 13, and when our telephone rang at 5:30, I knew it would be Mohawk Airlines to tell me the seven o'clock plane wouldn't be leaving the Ithaca airport! The gentleman didn't sound very encouraging about later flights either because a bad storm in the New York City area was scheduled to move upstate as the day progressed. I had reservations to fly to Newark and then on to Albany for a meeting of the New York State Council of Rural Women.

Walt seemed quite happy about the sudden turn of events and remarked that it really didn't matter whether or not I went to Albany anyway. Ordinarily this would probably have been true, but I had helped arrange the Albany program, made many of the contacts, and thought I should get there if possible. And besides, I wanted to go! The women on the Council are my good friends, and I've found being an advisor to the group a most pleasant association.

I'm not particularly fond of traveling by bus, but was on the one that left Ithaca at 7:30, scheduled to arrive in Albany at one o'clock. Somewhere between Syracuse and Utica, it became quite evident that the storm had arrived, and I've never seen it snow harder. We were only a half hour late getting in Albany, but what a mess it was there! Already they had about 15 inches of snow, and I guess they'd decided to do nothing about it as long as it was still coming down. Hopefully calling a taxi, I was told, "Anytime within an hour, lady!"

Visited Senate

Mrs. Martha Peterson, wife of Senator Dutton S. Peterson and also a CRW advisor, had arranged for us to visit the Senate that evening, and I rather enjoyed the "hike" in the snow, up the hill to the Capitol.

Martha's son, Osco, had dinner with us and explained the workings of the Senate and what we were likely to see and hear on our visit. This, I found to be a great help, for to one unfamiliar with what is happening, it's sometimes difficult to even understand what is being said, much less know what it's all about!

Osco is a practicing attorney with offices in Elmira and Odessa and has spent much time in Albany since 1956. He is now Counsel to the Senate Commission on Taxation, and this year is a candidate for the Republican nomination for Assemblyman from Schuyler County.

I hope the Petersons won't mind my passing on a story Martha told me in Albany. I enjoyed it and think you will too . . .

Dutton Peterson and Osco Robinson, Martha's brother, were very close friends during World War I, but Martha and Dutton didn't know each other yet. When Osco was killed, Dutton decided that if he ever had a son, he would be named for his friend.

Grieving over the loss of a dearly loved, older brother, Martha also resolved that her first son would be named "Osco." So there was no need to ponder over a list of boys' names when the first Peterson son arrived!

Full Schedule

Also while in Albany, we spent an afternoon with Dr. Francis E. Griffin and Mr. Donald Benedict in the State Education Department; we heard Attorney General Louis J. Lefkowitz and Governor Rockefeller address the Women's Joint

(Continued on page 39)



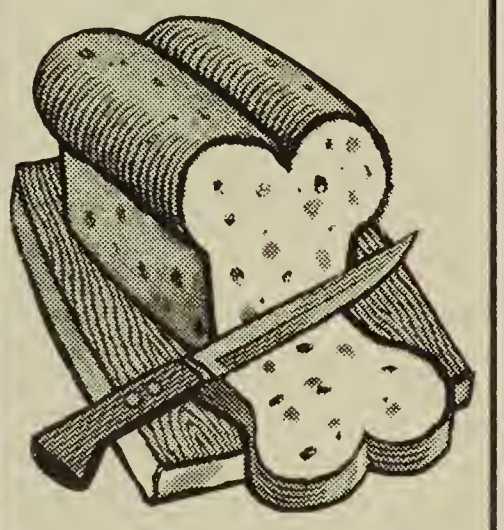
Pictured at CRW business meeting in Hotel Wellington, Albany, are left to right (with organization represented): Mrs. Lizzie Houck and Mrs. Kay Williams, Grange; advisors Augusta Chapman, Fern Palmer and Martha Peterson; Mrs. Doris Sondericker, Dairymen's League; Mrs. Gladys Perras and Mrs. Dorothy Voorhees, Home Bureau, and Mrs. Dorothy Scofield, Grange.

Other members, arriving too late for picture, were Mrs. Jeraldine Platt, Home Bureau; Mrs. Agnes McHeffey, Grange, and Dairymen's League women, Mrs. Bessie Turner and Miss Helen Smith, Supervisor of Home Service.

Photo: Knickerbocker News



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IRISH FRECKLE BREAD
2 packages Fleischmann's Active Dry Yeast
1 cup warm potato water or warm water (105°-115°F.)
¼ cup lukewarm mashed potatoes
8 tablespoons sugar
5¼ cups unsifted flour (about)
1 teaspoon salt 2 eggs, beaten
½ cup Fleischmann's Margarine
1 cup dark seedless raisins

Dissolve Fleischmann's Yeast in potato water. Now add mashed potatoes, 2 tablespoons sugar, 1 cup flour. Beat until smooth. Cover; let rise until bubbly (about ½ hour). Stir down; add remaining sugar, salt and 1 cup flour; beat until smooth.

Add eggs, then cooled, melted Fleischmann's Margarine. Add raisins. Now stir in enough additional flour to make soft dough. On lightly floured board knead until smooth and elastic, about 5 minutes. Place in greased bowl, turning to grease top. Cover; let rise in warm draft-free place until doubled in bulk, about 1 hour.

Punch down. Divide into 4 equal parts. Let rest 5 minutes. Shape each part into slender loaf about 9" long. Put 2 loaves side by side in each of two greased 9x5x3" pans. Cover; let rise in warm draft-free place until doubled, about 40 minutes. Bake in a moderate oven (350°F.) 45 minutes or until done. Makes 2 breads.

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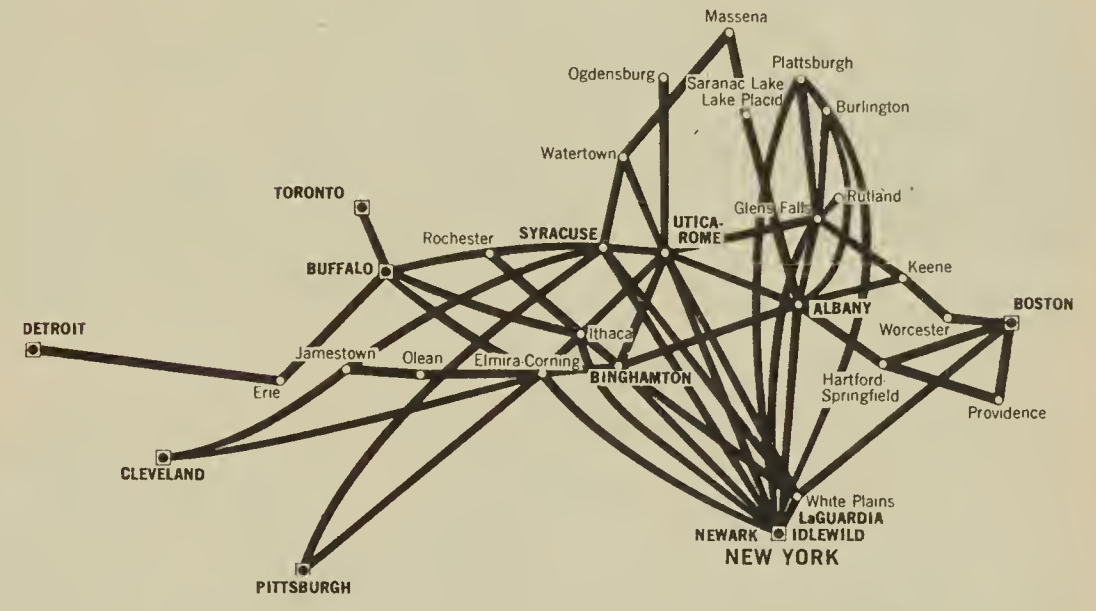
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'round the kitchen

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EASTER FUN

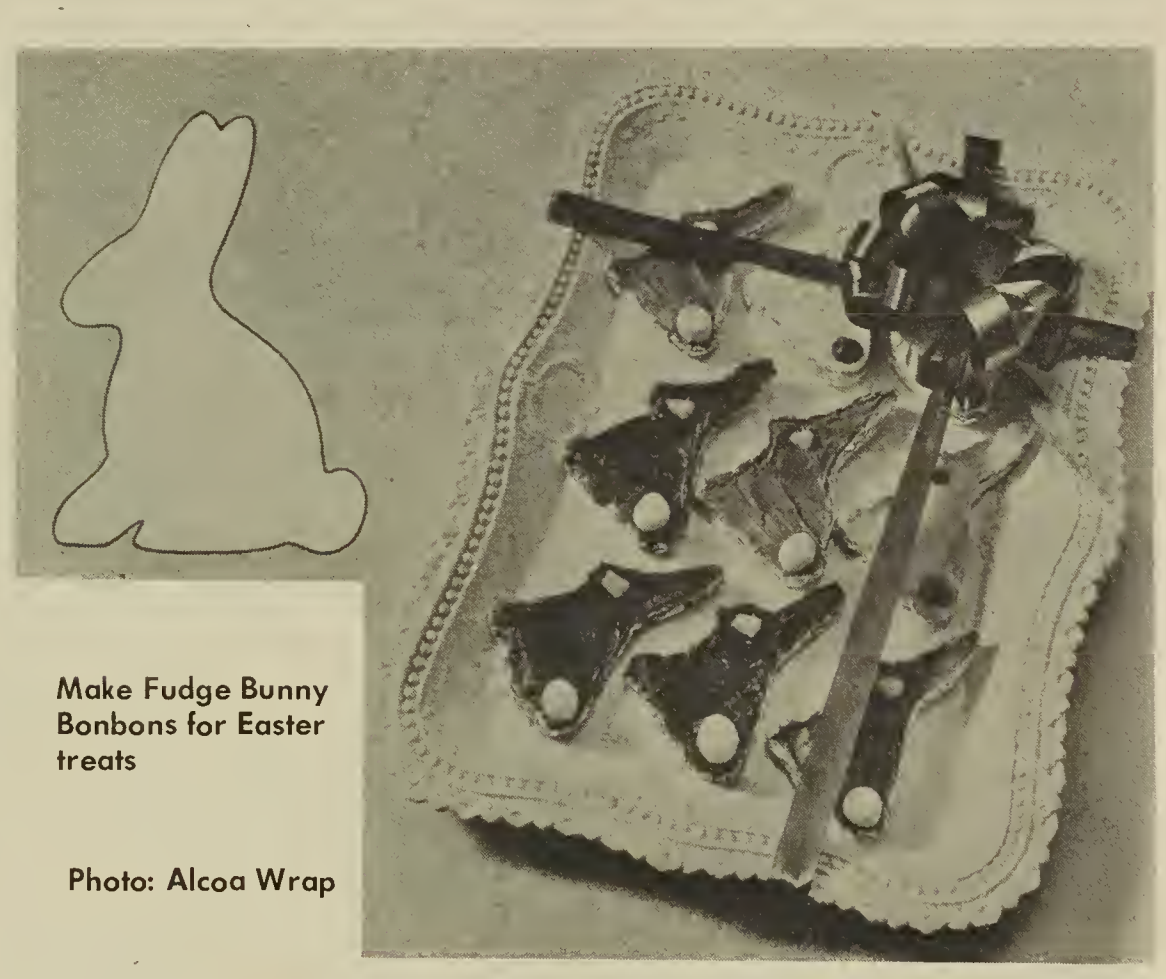
Let the children make Fudge Bunny Bonbons for Easter baskets this year. Just spoon easy-to-make chocolate or butterscotch fudge into bunny-shaped foil cups.

To make the cups: Using sketch in the picture as a guide, draw a bunny of desired size on piece of lightweight cardboard, cutting as many as desired. For each bunny, cut two 4-inch squares of heavy duty aluminum foil. Slip each cardboard figure between two pieces of foil; turn up edges of foil to outline the cardboard and form sides of the bunny-shaped foil cup. Turn excess foil down, toward inside of cup, to form a smooth, ½-inch high rim.

To make chocolate fudge for bonbons:

Melt over hot water (not boiling) two 6-ounce packages of chocolate morsels. Remove from water and stir in (do not beat) 2/3 cup sweetened condensed milk, 1 tablespoon water, and 1 tablespoon vanilla. Spoon into cups and chill.

For butterscotch fudge, use butterscotch morsels, omit the water, and use 1 teaspoon vanilla. Use marshmallows and candies for tails and eyes.



Make Fudge Bunny Bonbons for Easter treats

Photo: Alcoa Wrap

THE "GOOD EGG"

Eggs are one of this month's plentiful foods, so plan to make the most of them in your family meals. They are nutritionally valuable, too, since they furnish high quality protein, are good sources of vitamins A and D, thiamine and riboflavin, and the egg yolk is rich in iron. Calorie-wise, they are low – only about 80 per egg.

Some farm homemakers like to freeze egg surpluses. Whole eggs and whites may be frozen as is, but sirup, salt, or sugar must be added to yolks for a satisfactory product. Be sure to use only clean, high quality, refrigerated eggs.

To freeze whole eggs, break number to be frozen into a bowl, mix to blend whites and yolks (do not whip air into eggs), package, and freeze promptly. One of my friends drops one whole egg into each section of ice cube trays. When frozen, each egg is removed, placed in suitable wrap, and stored in bags in the freezer. In this way, the desired number of eggs may be removed for use at any time.

To freeze egg whites, simply put in suitable freezer container, cover, and freeze.

To freeze yolks – measure yolks, and for every cup, add 1/2 to 1 tablespoon light corn sirup **OR** 1/2 to 1 tablespoon sugar **OR** 1 teaspoon salt. Mix to blend yolks and added substance, but do not beat. Place in containers and freeze.

Cream Puffs and Eclairs

Cream puffs or eclairs will make a nice ending to your Easter dinner. If to be filled with ice cream, they can be made ahead and frozen – slit baked puffs, fill with ice cream, wrap, and freeze. At serving time, unwrap and serve at once with desired sauce.

Use Puff Shell recipe below to bake large round balls for cream puffs, tiny mounds for miniature tea puffs, or finger shapes for eclairs.

PUFF SHELLS

1/2 cup butter
1/4 teaspoon salt
1 cup boiling water
1 cup sifted all purpose flour
4 eggs

Add butter and salt to boiling water and stir until melted. Bring to boil and add flour all at once. Stir very hard over low heat until mixture forms a ball and leaves side of pan. Remove from heat and

(Continued on page 39)

Round the Kitchen

(Continued from opposite page)

add eggs one at a time, beating hard after each addition. Continue to beat until the mixture is smooth, shiny, and stiff.

Using a wet spoon, drop rounded tablespoons of dough about 2 inches apart on a lightly greased baking sheet for cream puffs. If you wish midget puffs, drop dough by small teaspoonfuls. For eclairs, use a spatula to form each large ball into a finger shape, about 4 inches long and 1 inch wide, rounding sides and piling dough on top. Recipe makes about 12 cream puffs or eclairs or about 3 to 4 dozen midget puffs.

Bake in a moderately hot oven (400°) about 45 minutes for cream puffs and eclairs, about 25 to 30 minutes for midget puffs, or until puffed, crisp, and lightly browned. Remove from pans and cool on wire racks.

For Easter dessert, cut slice from top of each large puff or eclair and fill with tasty, rich custard filling, ice cream, or flavored whipped cream, and top with chocolate, caramel, butterscotch, or coffee glaze or sauce, or raspberry or strawberry sauce. Bits of soft dough may be removed from inside of puff with a teaspoon.

Midget puffs filled as above or with tasty salad mixtures make teatime dainties. Large shells may also be used to hold your special hot creamed mixtures of poultry or fish or cold salad mixtures for luncheon dishes.

"The Versatile Egg," Cornell Extension Bulletin 915, 35 cents (single copies free to New York State residents), discusses egg standards, nutritive values, preservation, cooking, and the use of eggs in food preparation. It is available from Mailing Room, Stone Hall, Ithaca, New York.

House Plants.....

(Continued from page 35)

Check plants frequently for insect and fungus damage and treat promptly before the insects or disease spread. You can usually get a dual-purpose aerosol bomb which will take care of both, but be sure to hold it at the proper distance (as indicated on the label), or you will burn the plants badly.

Plants newly purchased should be put in partial shade for a day or two and should have the foliage sprinkled, for they have usually made at least a couple of transitions — from a hot humid greenhouse, to the florist, to your home. Good luck in your adventure, and why not let me know how you make out!

Visiting.....

(Continued from page 36)

Legislative Forum; we toured the new Civil Defense headquarters on the State Office Building Campus; we attended the annual meeting of the New York State Agricultural Society and the Farm Products dinner where four new Century Farm Families were presented citations.

What Is The CRW?

It occurs to me that some of you reading this column may not know what the Council of Rural Women is or the reason for its existence, so I'd like to tell you a little about it.

The Council was established in 1931 for the purpose of helping organized rural women of New York State work together on matters affecting families and communities — rural-urban and international relations, educational opportunities, rural churches, marketing, and legislation. By meeting several times a year, the Council members would become better acquainted with each other's problems and programs.

Composed of 12 key leaders, the Council represented approximately 112,000 women in its four member organizations — the Grange, Federation of Home Bureaus, Home Department of the Dairymen's League, and the State Council of Churches (Rural Division).

This setup remained the same until 1963 when the Council of Churches withdrew its membership, since there was no longer a "Rural Division," as such. (I felt badly about this when it happened and still believe it was a mistake. Regardless of a name or lack of one, I'm sure the Church Council is still concerned about rural people and interested in helping them with their spiritual problems, or in any way possible.)

A Close Look

Lately, I've noticed the members taking a close look at the Council, reassessing its aims and accomplishments. This is a good, healthy sign, and there have been many definite, tangible achievements through the years.

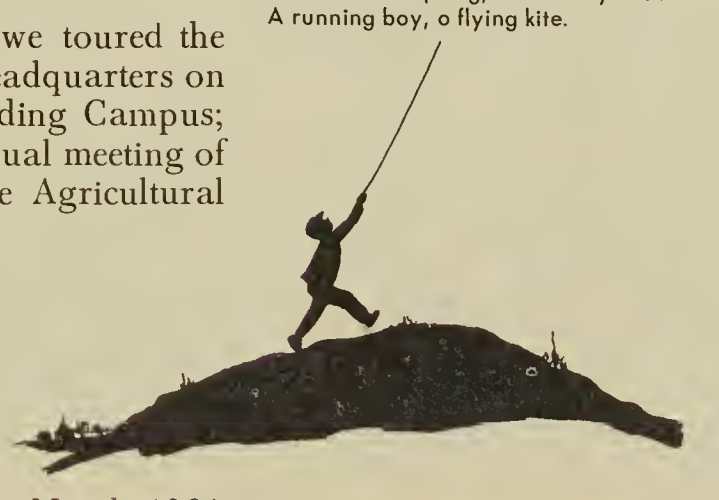
I believe, however, that one of the things that makes the CRW worthwhile is simply that women leaders of New York *do* become acquainted and learn each other's problems. Some of these problems seem to be forever with us, and new ones emerge each year to challenge women, individually and collectively.



SIGN OF SPRING

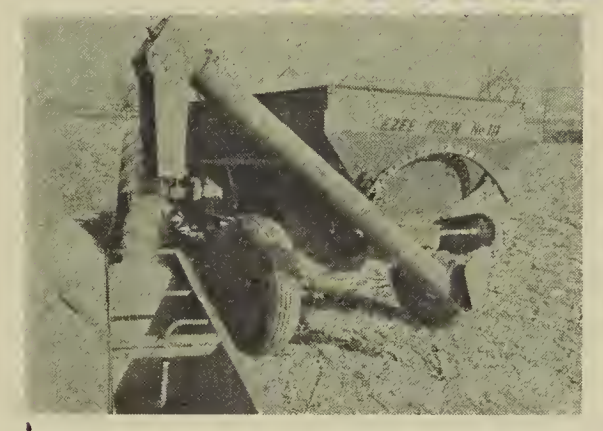
by Mildred Goff

The air is crisp ond cold as snow
And leofless trees shivering,
With nathing anywhere ta show
The warld will ever welcome spring.
Then, outlined an o windy hill,
There is a welcome, woited sight
That heralds spring, and always will—
A running boy, o flying kite.



With AMERICAN AGRICULTURIST Advertisers





Ezee Flow, 3428 North Harlem Avenue, Chicago, Illinois, has a new auger unloading attachment for the No. 111 spinner-type fertilizer spreader that makes the spreader a year 'round all-purpose machine. By removing the spinner gearbox and installing an auger attachment, the spreader can be used to handle shelled corn, wheat and other free-flowing grains or feed.

A new tractor-mounting capable of carrying two 55 gallon drums for use with pre-emergence planter equipment, transplanter or regular boom sprayers, has been introduced by Century Engineering Corporation, Cedar Rapids, Iowa. The Model No. 26-RM fits most tractors, and fenders do not have to be removed. It also allows the farmer to safely carry double the liquid load of standard 55 gallon tank mountings, reducing the number of trips to and from the source of water.

New easy handling, dependable and high-powered chain saws for every farm woodcutting purpose are being produced by McCULLOCH CORPORATION, 6101 W. Century Blvd., Los Angeles, California. Of special interest to farmers is the new MAC 15.

Other new McCulloch saws introduced cover the entire range of farm requirements from firewood and fence post cutting to tree farming. The high speed direct-drive models are the 200, 250, 380 and 440. Gear drives for those who prefer the lower chain speed and the lugging ability of geared chain travel are the models MAC 25A, 640 and BP-1.

The BP-1, by the way, has a brand new development — two pistons. One provides power and the other equalizes vibration and supercharges the engine.



Two new tractors have been announced by Ford Motor Company's Tractor & Implement Operations. They are the Ford 4000 Grove tractor and the Fordson Super Major Hi-Drive. The 4000 Grove tractor (shown above) is designed for use in orchard and grove operations, is fully shielded to protect the fruit and trees as well as the operator and vehicle components from low-hanging branches and brush. The tractor is a basic Ford 4000 industrial model, providing 34 drawbar horsepower in the diesel version and 39 in the gasoline version. The Fordson Super Major Hi-Drive includes a drop rear axle drive and high clearance front axle, with both adjustable from 58 inches to 74 inches.

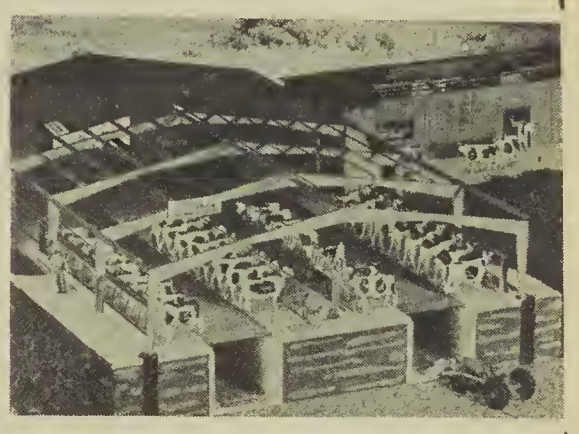


International Harvester Company, 100 North Michigan Avenue, Chicago 1, Illinois, has two new pto-powered McCormick International portable grinder-mixers, the No. 85 and the No. 105, for dairymen, cattle feeders, swine growers and poultrymen, who want to grind and mix their own feed right on the farm.

Calf scours can be quickly treated by using Aureomycin-Sulmet Calf Scours Oblets, introduced by American Cyanamid Company's Agricultural Division. This new product gives the benefits of both Aureomycin as an antibiotic and Sulmet as a sulfa drug to fight the disease organisms that cause bacterial scours.

Improved mastitis control is also possible by treating infected animals directly through the bloodstream with Sulmet Mastitis Oblets, according to an announcement from American Cyanamid. Previous treatments were applied into the infected portion of the cow's udder.

The Uni-Tractor and Uni-Implement portion of the Minneapolis-Moline, Inc. agricultural equipment line has been purchased by the New Idea Division of Avco. Production of the Uni-Equipment has been transferred to the Coldwater, Ohio, factory of New Idea. Minneapolis-Moline, Inc. will continue to manufacture the engine and transmission for the Uni-Tractor in Minneapolis. Both companies will provide warranty service on the machines sold by them, and New Idea is also acquiring an adequate supply of repair parts to assure continuing service in the future to all owners of "Uni" equipment.



A versatile new all-steel barn which can easily be adapted for raising beef cattle, dairy cattle, hogs, chickens or grain-drying has been developed by agricultural engineers at United States Steel Corporation, Pittsburgh, Pennsylvania.

For beef and dairy cattle, two rows of yoke-type stalls are placed in the center of the barn and a row of similar stalls is located along each side wall. Slotted steel floors are behind all four rows of cattle.

Pits can be cleaned at necessary intervals by using a tractor with a manure scoop attached. Or, if a liquid manure disposal system is used, the pits can be connected with a storage tank adjacent to the barn.

AA Livestock Mart



ABERDEEN-ANGUS

BRED COWS, heifers and bulls. Herd Sire a 1960 pound bull. Growthy, quality cattle. Member 500 club. Clayton Taylor, Lawtons, N. Y.

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MARSHALL KIMBERCHICKS. Today's Kimberchicks offer more for your chick dollar than ever before — at a time when you need every advantage. To earn extra profits in 1963 order Kimberchicks now by calling Marshall Brothers Hatchery, Ithaca, New York. AR 2-8616.

"HEAVIES" Reds, Rocks, Rockcrosses $3.95—100. "Jumbo" White Rocks $5.49. COD. Heavy Breeds Straight hatch $7.90; Pullets $10.49. "Deluxe" Barred Rocks. White Rocks, Hampshires, Production Reds straight hatch $9.70; Pullets $16.70. "Famous" White Leghorn Pullets $17.50. "Champion" Pedigreed White Leghorn Pullets $21.70. Redrock Sexlinks, Golden Sexlinks, Silver Cross Pullets $24.70; Straight hatch $13.95. Black Giants, White Giants, Buff Rocks, Silverlaced Wyandottes, Giant Brahams, White Wyandottes, Australorps, Black Minorcas, Anconas, Brown Leghorns straight hatch $14.95; Pullets $26.95. Pekin Ducklings 12—$4.75. Broadbreasted White, Bronze Turkeys 15—$12. Beltsville White Turkeys 15—$10. fob nearest hatchery. Live guarantee. Ruby Chicks, Dept. AGR, Virginia Beach, Virginia.

ROCKS, REDS OR CORNISH $3.95-100. Large White Rocks $5.49. Over 50 other breeds—Leghorns, heavies and crosses $1.45 to $5.75. Pullets $10.50. Before you buy, compare our prices. We guarantee to save you money. Customers choice of breeds shown in terrific big free catalog. Shipment from hatchery your section. Atlas Chicks, Home Office, 2651 Chouteau, St. Louis 3, Mo.

BABY CHICKS

KOSKINEN HATCHERY—Rapp Leghorns and Harco Sex Link chicks and started pullets. Trumansburg, N. Y., 387-9300.

MEADOW VIEW CHICKS — Rapp Linecross Leghorns, Harco Reds, Harco Sex-Links, Lawton Buffs, Peterson Cornish Cross. Henry M. Fryer, Greenwich, N. Y.

FREE! 10 CHICKS with every 100. No extra cost. Sensational values! Rocks, Reds, Wyandottes, Leghorns, Minorcas. 30 breeds. Low as $8.95—100. Ducklings. Turkeys, started chicks. Free catalog. Mt. Healthy Hatcheries, Mt. Healthy, Ohio.

Good chicks from

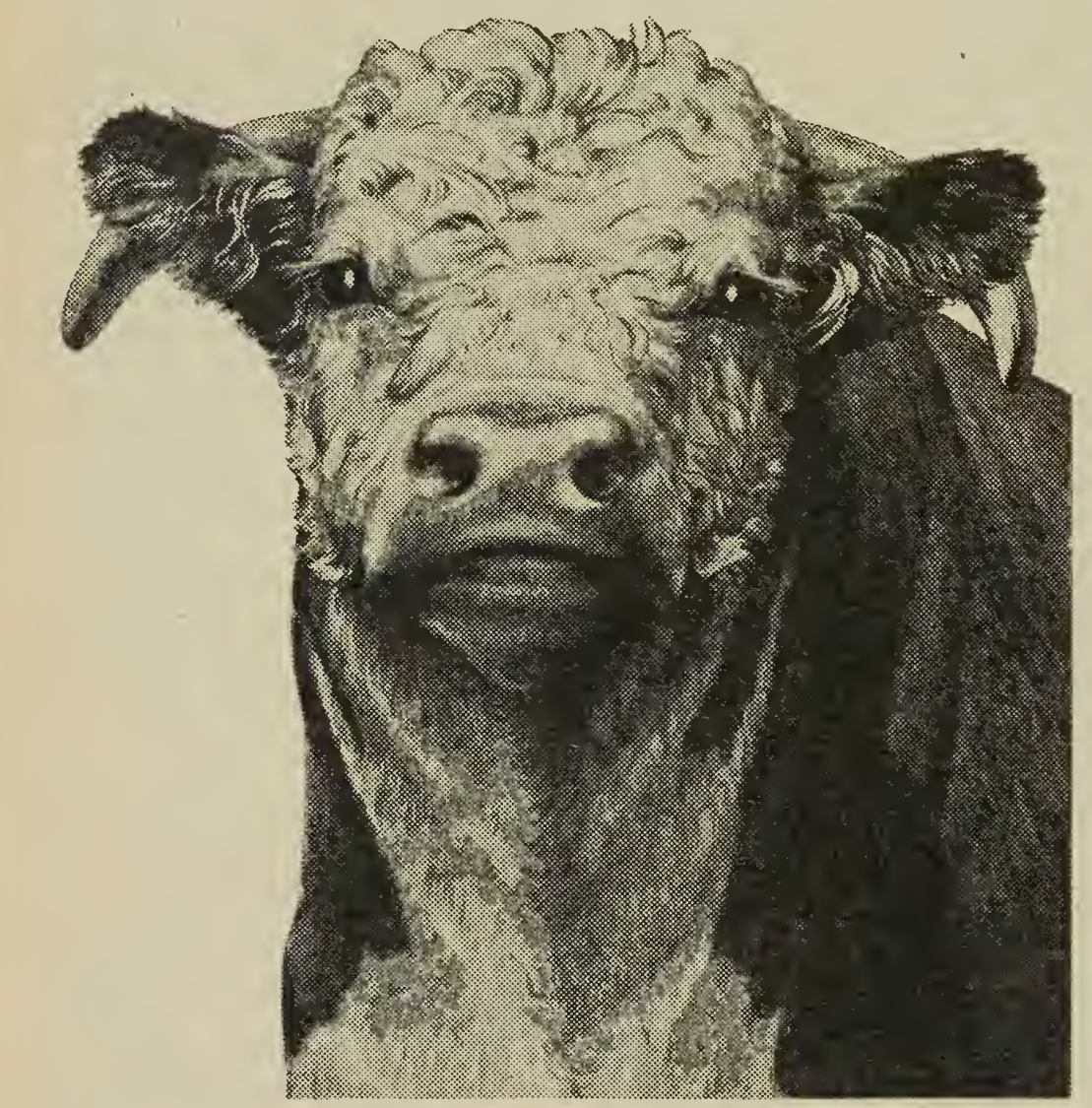
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One is bound to be just right for your operation. For brown eggs: Hall-Harco Sex Links or our R. I. Reds. For white eggs: Arbor Acres Queens or Darby Strain Cross. For eggs and meat: Golden-Buff Hallcross or Silver Hallcross. For meat: Vantress or Peterson Cross. Fast, guaranteed-live delivery. You must be satisfied. Write for price list to 214 Cook Hill Road.

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BABY CHICK BARGAINS — Barred Rocks, White Rocks, New Hampshire Reds, White Leghorns, Heavy Assorted. Free catalog. Surplus Chick Co., Milesburg 4, Pa.

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BROWN SWISS Empire State pre-convention sale, Thursday, April 2, 1964, 12:30 P.M., Canandaigua, N.Y. Sale at Ontario County Fairgrounds, 2 miles east of Canandaigua, N.Y. 50 registered Brown Swiss—fresh cows and heifers, bred heifers, heifer calves. Never before has a New York State Brown Swiss sale offered so much quality. 5 excellent cows sell with record to 670# fat. Other cows selling with individual records to 18,910# milk. A choice group of bred heifers and heifer calves selling from dams with records to 17,000# milk. Every animal carefully selected by Fred Gauntt and members of the sale committee. Write for your free catalog today. Practically all the animals are eligible for interstate shipment. Harris Wilcox, Inc., Sale Mgr. and Auctioneer, Bergen, N.Y. Phone 146. Duncan Bellinger, Sale Chairman, Howes Cave, N.Y.

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STARTED SURGICAL CAPONS. Grow capons for market or your own eating pleasure. Write for free information and prices. Rhodes Started Capons. Alan Rhodes, Kingsley, Pa. 18826.

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CHAROLAIS—200 HEAD registered and recorded bulls, cows, heifers for sale. Reasonably priced. No Saturday sales. Flying Horseshoe Ranch, Morris, Pennsylvania.

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COWS FOR SALE—T.B. and Bloodtested. Holsteins in truckloads. E. C. Talbots, Leonardsville, N. Y.

WISCONSIN DAIRY COWS — new arrivals each week. Good deal for every dairyman. Free delivery—one cow or truckload. If you are interested in adding good cows and improving your dairy herd, you will be calling the right man. I am interested in building up a good reputation with the dairy farmers of your community. Reuben Greenberg, Inc., Columbus, New Jersey, 3 miles south, exit 7 New Jersey Turnpike. Out of State use area code 609. Phone 298-1021 or 298-1664.

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AMERICAN ESKIMO — (Spitz) puppies. Beauties. Stud service. Hanmont Kennels, Attica, New York.

BORDER COLLIES—New England Champion, trial winners and livestock workers. Satisfaction guaranteed. For particulars write Edgar A. Gould, Shelburne, Mass.

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WHITE EMDEN GOSLINGS—Buff ducklings. Ovid Fry, 410 Webster Road, Webster, N.Y.

GOSLINGS—Emden, Toulouse crosses 10 for $15.00 postpaid. 10 for $13.50 if paid before April 15. B. Sander, RD#2, Harpursville, N.Y. 13787.

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REGISTERED QUARTER HORSES, mares, colts and broke horses. Any number of grade horses for any occasion. Leslie Bowerman, 9065 Chestnut Ridge, Middleport, N.Y. Phone RE 5-7127.

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PHEASANTS

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WANTED—Red Angus cattle any age. Give parentage. E. R. Yager, R.D.#3, Mexico, N.Y.

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PUT PROFIT IN YOUR POCKET — Put Shorthorn beef cattle to work at your farm. Turn grass to beef, rapidly and efficiently. Thrive in toughest winter conditions. Free performance facts for the asking—Association Secretary, Dale R. Buck, Route 2, Waterloo, N.Y.

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April 4, 1964

Bulls, Cows, Bred and Open Heifers.
Show at 9:30 — Sale at 1:00

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For information write:
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375 ACRES—barn 26 stanchions, milk house, bulk tank, silo, 2 houses, modern conveniences. J. Robert Allen, RES, Dundee #2, N.Y. Dial 607-292-3180.

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FEDERAL SURPLUS AGENCIES now running tremendous surplus sales open to public — nationwide. "Locations & Procedures"—$1.25. Surplus Information, Box 425(A), Nanuet, New York.

FARM BOLTS & NUTS, surplus, washers, screws, for everyday use. 100 lbs. $24.95 FOB Minneapolis, Minnesota. Send check to Milton Ackerman Supply Company, 1904 2nd Street North, Minneapolis 11, Minnesota.

HAY & OATS

FIRST AND SECOND cutting alfalfa—mixed trefoil and other grades of choice hay delivered by truckload. Weights and quality guaranteed. Bates Russell, East Durham, N. Y. Phone Melrose, 4-2591 before 8 A.M. or after 5 P.M.

WE CAN DELIVER good quality new crop 1st cutting dairy hay. Now is the time to buy. D. Arnold Boyd, York, New York. Phone: Geneseo 892.

FOR SALE—hay, straw. Delivered anywhere. S. E. Skinner, Box 456, Richfield Springs, New York. Phone 240.

ALL TYPES OF HAY delivered by truck or trailer, C.O.D. Guaranteed weights & representation. Stewarts, Maplecrest, N.Y. Phone Windham 290J2 & 1.

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$23 WEEKLY for wearing lovely dresses supplied to you by us as extra rewards. Just show Fashion Frocks to friends in spare time. No investment, canvassing, experience necessary. Fashion Frocks, Dept. P-16101, Cincinnati, Ohio 45202.

WANTED—Married man on a modern Genesee Valley dairy farm. Must be experienced and good milker. Herbert Rose, Portageville, New York.

$25.00 OR MORE in a day for part or full time route work. Large repeat orders. Man or woman. Write McNess, Dept. 27H, Box 371, Baltimore, Md.

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EXTRACTED HONEY—Clover, Buckwheat or Fall-flower, 5 lb. container $2.10, 3—$5.75, 6—$10.50. Prepaid 4th zone. Lang Apiaries, Box A, Gasport, New York.

IRIS

10,000 TALL BEARDED IRIS RHIZOMES. 300 varieties. 75% savings. 5¢ stamp for catalog. Turners Iris Gardens, 19 Sylvan Ave., Latham, N.Y. 12110.

MAPLE SYRUP

PURE MAPLE SYRUP. Finest quality, satisfaction guaranteed. 1 Gal. can $6.75; ½ Gal. $3.75. Wm. W. Lawrence, Hunter, N.Y.

MAPLE SYRUP, cream, candies. Mailable. Elliott Homestead, New Kingston, New York.

MISCELLANEOUS

1 USED TIME CLOCK astronomical, automatically on at dusk off at dawn—cost over $75 new. Guaranteed perfect operating condition—$7.50 postpaid. Card's Wholesale, Card Road, Delevan, N.Y.

FREE WHOLESALE CATALOG — 100,000 Products . . . Tremendous Discounts! Taylor Distributors, Newton 14, New Jersey.

STOP ITCHING—Promotes healing of piles; psoriasis, eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed. 3 oz. $1.00 postpaid. Roberts Pharmacy, Lisbon Falls, Maine.

"WILL FORMS" — Five Legal Will Form Blanks, complete with instructions, $1.00 postpaid. Fully Guaranteed! Brugenheimer Company, Box 158-N77, Lexington, Massachusetts.

MISCELLANEOUS

CESSPOOLS, SEPTIC TANKS — outhouses, clogged drains cleared. Deodorized without digging and pumping. Sursolvent reduces contents, reclaims leachability. Old systems made to work like new. Free details. Electric Sewer Cleaning Co., 264 Lincoln Street, Allston 34, Mass.

PARTS FOR STOVES—furnaces, coal, oil, gas, electric. Empire Stove Co., 793 Broadway, Albany, New York.

QUICK-JOHN — For septic troubles, outdoor toilets. New, exclusive enzyme-bacterial formula digests solids, grease, paper, etc. Ends backups, odors, pumping, digging. Harmless to plumbing. Six treatments in handy flush packets. $2.50 postpaid. 14, $4.50. Money back guarantee! Ryter, Co., Madelia 20, Minn.

QUICK JOHN—Cleans septic tanks, cesspools, outdoor toilets. Stops odors, backups. Opens drains. 6 premeasured treatments $2.50. 12—$4.50. Money Back Guarantee. Ryter Co., Madelia 20, Minn.

LEG SORE SUFFERERS—Send for free book on proven Viscose for relief of pain and aches of leg ulcers, swelling, itch, rash due to deep vein congestion. Works as you walk. Viscose Co., 100 West Chicago Ave., Dept. J.A., Chicago 10, Illinois.

SONGPOEMS WANTED — Collaborate with professional songwriters equally. Share royalties. Songwriters Contact, 1619-G Broadway, New York 19.

FIND BURIED GOLD—silver, coins, sunken treasures, ancient firearms with new Dynatector. Unconditionally guaranteed. $3.00. Dee, Box 7263-N33, Houston 8, Texas.

LIGHTNING RODS—We specialize in complete and economical lightning protection systems. Free inspections or information. Morse-Collins, Inc., 148 Coddington Road, Ithaca, N.Y., member United Lightning Protection Association.

EXTRA PROFIT FOR YOUR CHURCH OR GROUP: Full 60%! Limited time offer. Raise $60.00 easy, fast. Have 10 members each sell only ten $1 bottles my famous Double Strength Imt. Vanilla Flavoring. Keep $60.00 for your treasury. No money needed. Write Anna Wade, Dept. 9AD2, Lynchburg, Va.

CHAIR SEATING MATERIALS—Cane, Rush, Splint, Reed, Accessories. For complete price list send 10¢ coin. The Workshop, 122 Main Street, Penn Yan, N.Y. Dept. AA.

MAKE YOUR OWN WILL — "Will Forms" complete ready to fill out with instructions. Two copies 50¢, five copies $1.00. Pioneer, Tunnel, Marietta 18, Ohio 45750.

NEW & USED EQUIPMENT

BARN CLEANERS—silo unloaders, engineered by Patz. New different bunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Nold Farm Supply, Rome, N. Y. Willard Howland, Southampton, Mass.

DEPRESSION PRICES—We sell cheap. Save 75% off new and used tractor parts, crawlers, wheel tractors, 190 makes, models. Catalog ready. Send 25¢. Surplus Tractor Parts Corp., Fargo, No. Dakota.

WANTED — ALLIS CHALMERS Roto Balers. Brice Creesy, Andover, Ohio.

COBEY—MASSEY-FERGUSON, Farm Equipment. Cockshutt parts, used machines all kinds. Ingersoll Farm Supply Inc., Martinsburg, New York. Phone Lowville 85.

FOR SALE — Chisholm Ryder Green Bean Harvester—used only 375 acres, excellent condition. Oliver 3 bottom Roll over Plows. McConnell Clod Buster, used 20 acres. John S. Goodrich, Rte. 15, Avoca, New York.

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LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters — extra low prices. Box S-34, Unadilla Silo Co., Unadilla, N.Y.

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BULLDOZERS — Good selection—Oliver OC-3 with blade and winch—$1650 and up. 5 Oliver OC-4 crawlers, 5 model AG-6 crawlers with blades, 2 model OC-6's with blades. John Deere crawlers used less than 200 hours—new condition—$1600. John Deere 420 crawler with blade—$995. Oliver OC-12 with blades—special at $5,000. New Oliver OC-9 with blade and OC-96 with loader—used only 200 hours. Oliver OC-12—new—never used at a real bargain price. 75 used balers—60 used combines—100 wheel tractors, loaders-backhoes. Field choppers and forage wagons—both new and used—most all makes. Come in and see our selection of grinder mixer mills now in stock. Don Howard, Canandaigua, New York.

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PEACH, APPLE TREES—low as 20¢. Cherries, pears, plums, nut trees, strawberries, blueberries, dwarf fruit trees. Grapevines 10¢. Shrubs, evergreens, shade trees, roses 25¢ up. Quality stock can't be sold lower. Write for free color catalog and $2.00 free bonus information. Tennessee Nursery Co., Inc., Box 1, Cleveland, Tenn.

BLUEBERRY BUSHES, CULTIVATED, latest varieties, producing giant size berries, 4-3 year old bushes $6.50 postpaid, order early, supply limited. Brookside Blueberry Nursery, Pelham Rd., Amherst, Mass.

NURSERY STOCK

10 BLUE SPRUCE, 10 Norway Spruce, 4 yr. T 7-10", $4.00 Postpaid. Unadilla Nursery Co., Johnson City, N.Y.

EVERGREEN PLANTING STOCK — Highest quality, reasonable prices. America's largest growers. Free catalog. Musser Forest, Inc., Box 83-CC, Indiana, Pa.

CULTIVATED BLUEBERRY BUSHES — six 18"-30" $5.95; ten 10"-18", $7.50, postpaid. Morningbrook, Monson, Mass.

DWARF APPLES for New England usual varieties: ALSO more than 100 TASTY OLD apple varieties on East Malling IX and VII rootstocks. **CONVERSE COMPANY NURSERY,** Amherst, N.H.

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BABY EVERGREENS, SEEDLINGS, transplants. Xmas tree stock. List free. Neuner's Nursery, Eicher Road, Pittsburgh 2, Penna.

1,000 NURSERY ITEMS—Catalog. Tree Seeds, supplies; fruit, ornamentals, evergreen trees. Seedlings. Mellinger's, North Lima 42, Ohio.

COLORADO BLUE SPRUCE—25 for $3.75, postpaid. 10 to 14 inch. Heavy root systems. Free catalog and planting guide. Suncrest Nurseries, Box-J, Homer City, Pa.

EVERGREEN PLANTING STOCK—Christmas trees, ornamentals, timber. Free catalog and planting guide. Suncrest Nurseries, Box-J, Homer City, Pa.

EVERGREEN PLANTING STOCK—Highest Quality, Reasonable Prices. America's Largest Growers. Free Catalog. Musser Forests, Inc., Box 88-CC, Indiana, Pa.

EVERGREEN seedlings and transplants in leading varieties for Christmas and forest tree production. Assorted ornamentals. Free price list and planting guide. Flickingers' Nursery, Sagamore, Pa.

PARTNERSHIP OPPORTUNITIY

WANTED—MAN TO OPERATE productive dairy farm in Western N. Y. Ability with high producing registered holsteins and repairs and maintenance essential. Family help desirable. Terms: Partnership, share or salary according to qualifications. Box 514-AR, American Agriculturist, Ithaca, New York.

PLANTS

HYBRID TOMATO PLANTS—Free color catalog also lists cabbage, hybrid onion, sweet pepper, hot pepper, hybrid eggplant, lettuce, broccoli, cauliflower. Fully guaranteed. Write today. Piedmont Plant Company, Dept. 201, Albany, Georgia.

CERTIFIED TOMATO, pepper, cabbage, onion, eggplants, broccoli, lettuce, cauliflower, beets, collards and sweet potato plants. Field grown, healthy, vigorous plants. Write for free catalogue-price list. Satisfaction guaranteed. Evans Plant Co., Dept. 5, Ty Ty, Georgia.

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STRAWBERRY, RASPBERRY, BLUEBERRY, blackberry. Latest and best including Jerseybelle, Vesper Midway, Earlidawn, Frontenac, also Ozark Beauty and Geneva Everbearing. Latham, Madawaska, September Everbearing Raspberries. Write for free catalog describing 70 small fruit varieties. Walter K. Morss & Son, Bradford, Mass.

CREEPING PHLOX—12 for $1.00. Catalog Free. Low direct prices. Planters Nursery, Dept. P, McMinnville, Tennessee.

BLUEBERRIES—bearing age $1.15. Free catalog. Commonfields Nursery, Ipswich, Massachusetts.

PRINTING

RUBBER STAMPS—Labels, Printing, Salesbooks, Signature Stamps, Real Estate Signs, Mailbox Nameplates. Catalog. Champlain Industries, Hinesburg, Vermont.

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GOVERNMENT LAND now available in 25 States. Millions of acres low as $1.25 acre. Exclusive new copyrighted report. Send $1.00 to U.S. Land Disposal, Box 18177-BO, Indianapolis 18, Indiana.

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MAKE $280.00 getting just 10 growers to try Campbell's Gro-Green fertilizer supplement. These ten demonstrators will obtain ten more. Free kit. No delivery, no investment. Sample. Campbell Company, Rochelle 66, Illinois.

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FREE SEED CATALOG—40 pages; illustrated color. Garden seeds — vegetables — flowers — selected hybrids. Direct from breeder. Robson Quality Seeds. Inc., Hall 16. N.Y.

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CONTENTS OF OLD HOMES, attics, cellars, sheds, barns. Also need small lots of old furniture, china, glass, toys, tools, guns, dolls, jewelry, clocks, Mrs. Wesley B. Hoffman, Cornwall Bridge, Conn.

ALWAYS WANTED—old cast iron toys and banks also all brass carbide car lamps. Describe and price. Cobweb Antiques, Olivebridge, New York.

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BALED SHAVINGS—Clean, kiln dried hardwood, tightly baled, approximately 80 lbs. each; 30" x 16" x 16". Truck, trailer or car loads. (Slight extra charge for loading rail cars) C. B. Cummings & Sons Co., Est. 1860, Norway, Maine.

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BLACK WALNUTS, Pecans, English Walnuts, Brazils, Almonds, Cashews, Pepper, Cinnamon, Sassafras $1.25 Pound. Dried Mushrooms $3.00. Peerless, 538AA Centralpark, Chicago 60624.

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NO HUNTING SIGNS—any material, lowest prices. Free sample—catalog: Signs, 54 Hamilton, Auburn, New York, Dept. G.

PLASTIC POSTED—Land Signs. Durable, inexpensive, legal, free sample. Minuteman, Stanfordville, New York.

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SILOS, SILO UNLOADERS—barn cleaners. Nold Farm Supply, Rome, N. Y.

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AUTOMATIC FEEDING saves time and hard work. Feeding mechanically with the Silo-matic Unloader. "Scru-Feed'n Bunk Conveyor and Pro-Met'r concentrate dispenser. Proven equipment guaranteed. Free pictures and plans. Dealer inquiries invited. Write Van Dusen & Company, Inc., Dept. A, Wayzata, Minn.

SITUATION WANTED

NEED HELP? We may legally assist you to sponsor excellent Agriculture laborers, including tractor drivers, cattlemen, irrigators, etc. Write for free information stating your requirements to: S. D. Corona (AA) Atty. — 200 Libertad Avenue, 7th Floor, Guadalajara, Jalisco, Mexico.

STAMPS & COINS

307 WORLDWIDE Different 25¢. Sensational approvals. Niagara Stamps, St. Catharines 211, Ontario.

25 LARGE AMERICAN Commemoratives 10¢. Accompanying approvals. Free perforation gauge. Linstamps, St. Catharines 111, Ontario.

FIFTEEN PHILATELIC Zoological Specimens 10¢. Approvals. Free Watermark Detector. Crown Stamps, Virgil 311, Ontario.

ATTENTION STAMP COLLECTORS — The "Delaware Valley Stamp Exchange Club" is open for membership. For full details write: Geo. W. Lamborne, 265 Nassau Ave., Paulsboro, New Jersey, 08066.

CALEDONIA STOCK SHOW

For many boys and girls, as well as adult livestock feeders, the 15th annual New York "Meat Animal" Show and Sale will offer a fitting climax for their year's efforts in producing quality livestock. To be held at the Empire Stockyards at Caledonia, on Friday, September 11, this year's program will include a show and sale of lambs, hogs and steers, plus a complimentary banquet for all 4-H and Future Farmers of America exhibitors.

Entries must be made by September 5 on forms available from county extension offices, the Department of Animal Husbandry, Morrison Hall, Ithaca, New York, and John Moran, Empire Livestock Marketing Cooperative at Caledonia. This Show is open to residents of the State and includes two divisions, one for youth and the other for adults. Last year 140 exhibitors from 15 counties entered the competition and sold 347 head of high-quality animals to 108 different buyers, reports Show Committee president Bradford Sherwood of Appleton.

Serving on the fourteen-man Show and Sale Committee in addition to Moran and Sherwood are: Kenneth Simpson, Caledonia; Wayne Fisher, Warsaw; Kenneth Litton, Avon; M. J. Merton, Batavia; Leroy Poorman, Waterloo; Charles Miles, Rochester; Marion Tyler, South Byron; Lawrence Hunt, Ithaca; Peter Kanouse, Mt. Morris; Wayne Sage, Warsaw; H.A. Willman, Ithaca; and Franklin Karn of Belfast.

BEEF A I

A bull called "Vic" is the first Polled Hereford to be added to the American Breeders Service stud as a result of that organization's progeny-testing program initiated in 1961. He is the only one selected from seven that started out in the program. ABS reports that his progeny are clearly above breed average in terms of rate of gain and the uniformity and desirability of carcass characteristics.

NEW MASTITIS BOOK

A new 36-page publication with the latest current knowledge on the cause and control of bovine mastitis has just been published by the National Mastitis Council. Many universities collaborated in its preparation, and it is well illustrated with tables, diagrams, etc. Copies can be had from National Mastitis Council, Inc., 440 East Ogden Avenue, Hinsdale, Illinois for $1.00 per copy. Ask for "Current Concepts of Bovine Mastitis."

RED POLL BULL

The Red Poll Cattle Club of America and Pinney Purdue Farm, the latter an experimental farm owned by Purdue University at Wanatah, Indiana, have announced the approval of the Red Poll sire, Pinpur Monitor, for the breed's new official carcass-evaluation program — The Carcass Register. Pinpur Monitor thus goes down in cattle history as the first carcass-evaluated Red Poll sire anywhere in the world.

AGRICULTURAL LEADERS FORUM

At this year's Agricultural Leaders Forum, to be held at Cornell University on March 25, six leaders of agriculture, industry and government will probe the key questions of modern agriculture and its allied industries and organizations.

These leaders are: William E. Bensley, Springville, New York, dairy farmer and president of the New York Farm Bureau; Congressman Howard W. Robison, Owego, New York, U. S. Representative from New York's 33rd District; Leon B. Schachter, Camden, New Jersey, international vice president of Amalgamated Meat Cutters and Butcher Workmen of North America (AFL-CIO); Merritt D. Hill, Racine, Wisconsin, president of J. I. Case Company; James Mendenhall, Mount Vernon, New York, educational director of Consumers Union of U. S., Inc.; and John Strohm, Woodstock, Illinois, editor, publisher, author, and foreign correspondent.

Among the subjects discussed will be: the pros and cons of government controls; federal subsidies; the selling of food to Communist countries; abundance vs. scarcity; unionism in agriculture; the large corporation vs. the family farm. Also coming under discussion will be tomorrow's market trends; how food will be sold in the years to come; the problem of pesticides; and the political strength of farmers now and in the future.

BEEF BOOKLET

The American Angus Association has just issued a new beef cattle booklet, which tells the story of more than 150 leading cattlemen who raise Angus cattle. Free copies are available from the public relations department of the American Angus Association, 3201 Frederick Boulevard, St. Joseph, Missouri.



Officers and executive committee members of the New York Holstein-Friesian Association for 1964. Standing, left to right: Robert Pollok, Canandaigua; Joseph Fisher, Canastota, second vice-president; Avery Stafford, Peru; W. Newton Sweetland, Cazenovia; William J. Baldwin, Ithaca, executive secretary. Seated, left to right: Adrian T. Personius, Ithaca, treasurer; Donald V. Crowel, South Dayton, president; Kenneth A. Patchen, Locke, first vice president.



Governor John H. Reed (second from right) accepts from Dr. C. K. Mingle of the USDA the certificate which proves that Maine has qualified as a certified brucellosis-free area. The Governor presented the certificate to Mr. E. L. Newdick (second from left), Commissioner of Agriculture, and to Mr. Francis G. Buzzell (left), Director of the Division of Animal Industry. To date, Maine and New Hampshire have qualified under the brucellosis-free test; nationally, the disease has been eradicated from 203 counties in 19 states, Puerto Rico and the Virgin Islands.

SLICK CHICK



Pretty Joan Martin, 18 a freshman coed at Bloomsburg State College, Bloomsburg, Pennsylvania, has been selected to reign over the month-long observance of National Egg Month in March by the Poultry and Egg National Board. She symbolizes the "go-power" of eggs in her busy schedule of studies and outside sports activities.

Farm and "agribusiness" organizations across the land are boosting National Egg Month with highway billboards, radio broadcasts, and promotional material.

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VETERINARY SUPPLIES

VETERINARY SUPPLIES at sensible prices. Complete line. Quick delivery. Get price list from American Research Farms, Inc., Dept. ET, Lenexa, Kansas.

PEN-STREP OINTMENT FOR MASTITIS—top quality—top value—$4.00 dz. syringes, Pen-FZ $6.75 dz. syringes, Terramycin $5.00 box of 10 tubes, Combiotic 100cc's $2.00 each, Sul-Mycin 100cc's $2.35 each. Postpaid. Prompt dependable service. Paul & Company, Harvard, Massachusetts.

WANTED TO BUY

WANTED—Freaks, albinos, midgets, oddities. Fays, Madrid, New York.

OAK, ASH, MAPLE, poplar and walnut logs. Top prices. Housekeeper Forest Products, Putnam Valley, N.Y. Lakeland 8-2988.

WOMEN'S INTEREST

RUG BRAIDERS: Complete supplies available; precut and prerolled wool—36 standard colors. Braiders—needles—lacing and stand. Send 35¢ for color chart. Carten Redi-Braid. P. O. Box 61, Devon, Conn., Dept. A.

$CASH, making marble, moonstone Jewelry. Catalog 10¢. Flocraft, Farrell, Penna.

BRAIDING, HOOKING WOOLENS, 50¢, 75¢ pound; bright blanket pieces 50¢; large rug cottons 10 pounds $2.00. Percale, silk 4 pounds $1.00; plus postage. Joseph Demenkow, Abington, Massachusetts.

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3605 South 15th, Minneapolis 7, Minnesota.

FUN & PROFIT — "67 Ideas for Plastic Scraps" like berry baskets, detergent bottles, etc. Make gifts, bazaar items, toys, etc. Send 25¢ for booklet to Plastic Scraps, Dept. C1534, 14 Main St., Park Ridge, Illinois.

OIL PAINTINGS from photographs—portraits, pets, scenery. Helen Ashworth, Rt. 2, Heuvelton, N. Y.

FREE SAMPLES OF WALLPAPER—1963-64 catalog, 99 washable patterns. Decorating suggestions and color schemes. Instruction for measuring and hanging. We pay postage. Penn Wall Paper Mills, Dept. O, Bridgeton, N.J.

SPECIAL INTEREST TO WOMEN — Ladies purses and pocketbooks at a special price. Write: K. S. Smith, 50 Montgomery St., Gloversville, N.Y.

GERMAN SCISSORS — five assorted pairs, $2.50. Satisfaction guaranteed. Allaire Imports, 51 Pleasant St., So. Bellingham, Mass.

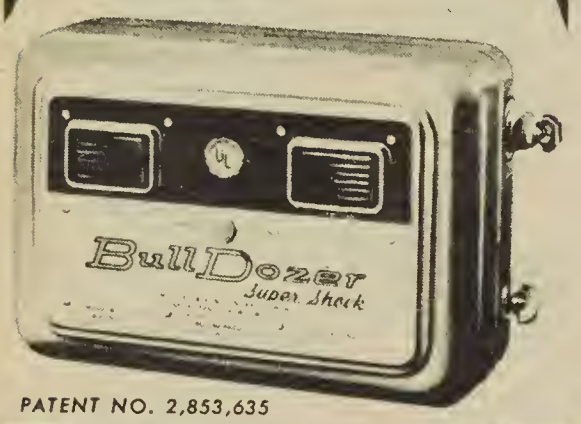
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DRESSES 24¢; shoes 39¢, men's suits $4.95; trousers $1.20. Better used clothing. Free catalog. Transworld, 164-M, Brooklyn 12, N.Y.

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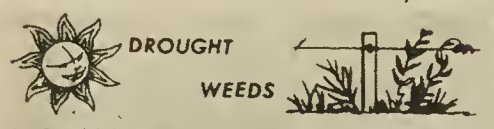


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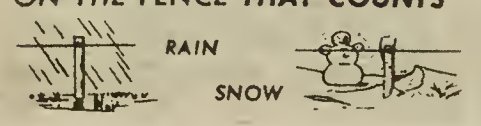
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Successful Truss That Anyone Can Use on Any Reducible Rupture, Large or Small

If you must wear a Truss for Rupture, don't miss this. A Post Card, with name and address, will get you FREE, and without obligation, the complete modernized Collings Plan of Reducible Rupture Control. Now in daily use by thousands who say they never dreamed possible such secure, dependable and comfortable rupture protection. Safely blocks rupture opening, prevents escape, without need of harsh, gouging pad pressure. Regardless of how long ruptured, size, occupation, or trusses you have worn. TRY THIS, and send your Post Card today to Capt. W. A. Collings, Inc., 5 Bond St., Adams, N. Y. Dept. 717A.

NORTH TO ALASKA!



Mirrored in Auk Lake near Juneau is magnificent Mendenhall Glacier.

Once again we offer you the opportunity to visit Alaska and the beautiful Northwest with American Agriculturist. The dates are July 10 to August 1 — three weeks of glorious fun, majestic scenery, happy companionship, and absolutely carefree traveling. The all-expense ticket for the tour includes everything except such personal expenses as laundry and souvenirs.

Our Alaska Tours are always very, very popular, and we think this year's is about the best we've ever had! Besides a thrilling cruise on the beautiful Inside Passage to the Land of the Midnight Sun, with stops at many Alaskan ports, it will include some of the greatest scenic attractions in America on our journeys to and from the West Coast.

Great Lakes Cruise

On our way West, we will have a cruise of the world's largest inland waterway from Port McNicoll on Lake Huron, where we will board the Great Lakes steamer Assiniboia, to Fort William on Lake Superior, passing through the great locks of the Sault Ste. Marie.

Continuing our journey aboard a Canadian Pacific streamliner, we will head for the rugged grandeur of the Canadian Rockies, via Ontario and Manitoba to Winnipeg and across the vast grain fields of Saskatchewan. We will have two and a half days in the Canadian Rockies, and will stay at both the Banff Springs Hotel and Chateau Lake Louise, as well as make an excursion to the Columbia Ice Fields.

Next will come sightseeing in Vancouver and a trip to the typically English city of Victoria, B.C. Here, of course, we will visit the world famous Butchart's Gardens. Returning to Vancouver, we will board our Alaska Cruise ship, the SS Princess Patricia, for the journey northward. Life on shipboard is fun, especially when you're with an American Agriculturist party. We'll enjoy the delicious meals, pleasant deck games, and friendly conversation, as we relax in our deck chairs and watch the beautiful scenery go by — towering mountains, rocky cliffs, rich green forests, tumbling waterfalls, and inviting islands.

In Alaska

We'll stop at many Alaskan ports, including Prince Rupert, Ketchikan, home of the salmon and halibut fishing fleets; Juneau, capital of Alaska, and Skagway, where the trail of '98 begins. Here a White Pass and Yukon train will take us on a never-to-be-forgotten trip into Yukon Territory as far as Carcross. Enroute, at Dead Horse Gulch, you can plainly trace the cruel trail on which hundreds of pack animals and prospectors perished in Gold Rush days. We'll also visit magnificent Mendenhall Glacier, where we will see blue compressed ice thousands of years old.

Arriving back in Vancouver, we continue on to Seattle for sightseeing, and then a mountain tour over Chinook Pass to Wenatchee, Washington. Our trip homeward will be aboard the Great Northern domeliner, "Empire Builder," and ours will be the first tour party to use this great train in the summertime.

Send For Folder Today

Our printed itinerary will give you full details of this fascinating tour, as well as the exact cost. To get a copy, just fill out the coupon below and mail it today. As we always have more reservations for our Alaska tours than we can accept, we urge you to get yours in early. A deposit of $100 will hold space for you, and this amount will be refunded promptly if you have to cancel your reservation later.

We hope to have you with us, and we can assure you that if you go, you'll have the trip of a lifetime and with absolutely no travel worries.

There is still space available for our Holiday in Europe, and we will be glad to send along that itinerary also if you would like a copy.

A. James Hall
American Agriculturist
Box 367-T
Ithaca, New York

Please send me, without obligation on my part, the following tour itineraries:

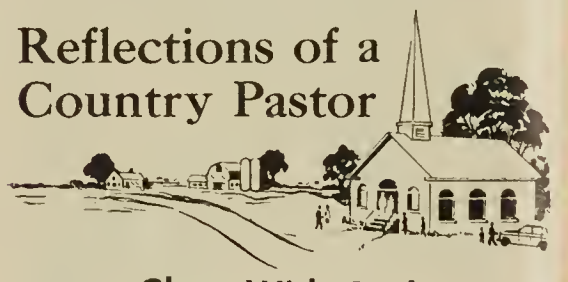
Alaska Tour —

Holiday in Europe —

Name _____

Address _____
(Please print)

Reflections of a Country Pastor



Clear With God

THERE is a great emphasis these days on "communications," which runs all the way from communion with oneself to contact with other nations via Telstar.

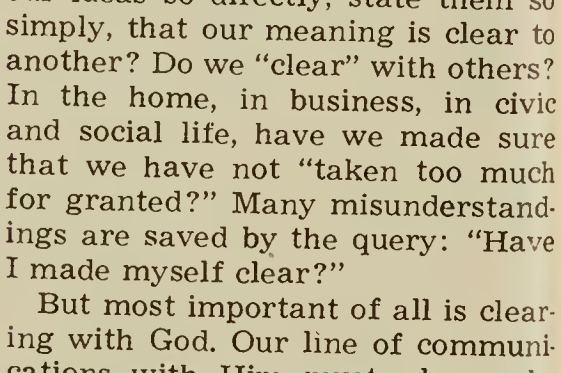
Communion with oneself may mean that you get your ideas clear, your thoughts straight, and your reasoning logical. You don't want to make a mistake in decision, so you do some hard thinking by yourself. After earnest thinking try this: throw out every prejudice and all preference, then seek direction in choosing the right.

Just as important are our communications with others. Do we put our ideas so directly, state them so simply, that our meaning is clear to another? Do we "clear" with others? In the home, in business, in civic and social life, have we made sure that we have not "taken too much for granted?" Many misunderstandings are saved by the query: "Have I made myself clear?"

But most important of all is clearing with God. Our line of communications with Him must always be open. Prayer is not asking for things, nor yet imploring assistance when in real trouble. It's the privilege and necessity of seeking His help in clearing our own minds. What is right in His sight? What is best in this human relation tangle or trouble? God's wisdom can be had if we put ourselves in spiritual tune to receive it. His response is not mechanical, like Telstar; He has our personal welfare on His heart. Let's find His will, and do it.

—Arthur Moody

CUT HAY DRYING TIME UP TO ½



"GRIMMS" TEDD-AERATOR HAY TEDDER

Two models, Land Driven or Power Take Off. Rubber tires. Turns hay in swath or windrows. Non-tangling pick up forks. Makes hay faster. Write for details.

G. H. GRIMM CO., Rutland, Vt.

CALLING ALL GARDENERS!

by Arthur J. Pratt*

In making up the following chart of my choice of new and old varieties of vegetables for the home garden, I have used quality as the first consideration, disease resistance second.

The special differences between varieties for home gardeners and those for commercial growers lie in quality and uniformity of maturity. Frequently the best quality variety is not tough enough to stand up to shipment to a distant market. The commercial grower usually wants a variety that can be harvested all at once, such as snap beans, radishes, lettuce, or cabbage — whereas for the home gardener it may be much better if a crop can be harvested over many days, or even weeks.

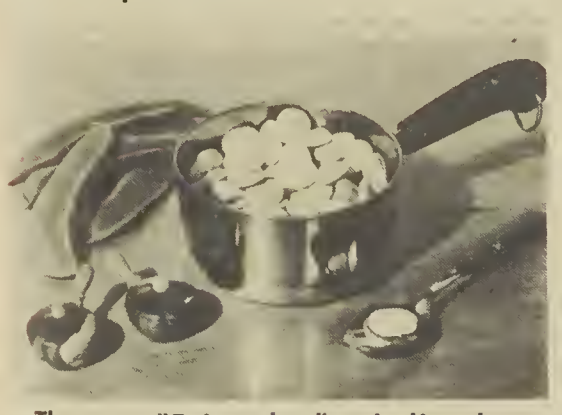
Resistance to disease is desirable for both home garden and commercial production. The former may be less well equipped to use sprays or dusts, but a 75 percent loss on a few feet of row of one of fifteen or twenty kinds of vegetables doesn't mean as much as it would on several acres which could be the commercial grower's primary income.

The days to maturity vary with the temperature and the date of planting. Those listed represent the usual situation in central New York State. The days to maturity are from seeding for those crops which are normally seeded where they are to mature, and from transplanting for such crops as broccoli, cabbage, cauliflower, celery, and tomatoes.

*Retired staff member, Vegetable Crops Department, Cornell University



This is W. Atlee ("Widge") Burpee IV with the new pumpkin which Burpee is introducing for 1964 appropriately named "Big Max." The pumpkin averages 100 pounds in weight and is up to 6 feet in circumference.



The new "Prizetaker" pole lima bean (Burpee) is "the largest of any lima bean," with excellent flavor and quality. Pods are 6 to 7 inches long and 1½ inches wide, with three or four beans per pod.



Bred specially for jack-o-lanterns, this Hybrid Halloween pumpkin has high shoulders and flat bottom, so it will stand well anywhere. Introduced for 1964 by Farmer Seed & Nursery, Faribault, Minnesota.

This hybrid broccoli, named "Cleopatra," was a 1964 All-America selection. It is early-maturing, cold resistant, uniform, adapted for spring or fall crops. The broccoli "Zenith" was the other All-America selection.



CROP	VARIETY	DAYS TO MATURITY	SPECIAL NOTES
Beans, Green Snap	Tendercrap	53	Exceptianal quality
Beans, Wax Snap	Pure Gald	60	All America Selectian
Beets	Crasby Green Tap	60	Excellent far greens as well as far the raats.
Braccali	Green Mauntain	60	Far spring planting
	Waltham 29	75	Transplant abaut July 1 far fall crap.
Brussels Sprauts	Jade Crass	90	All America Selectian
Cabbage early	Galden Acre YR	63	Be sure ta get resistant strain
" 2nd early	Badger Market	70	Small, high quality
" late	Danish Ballhead	95-105	Much difference in strains Study catalags carefully.
Chinese cabbage	Michihli	80	In July saw seed in place and thin.
Carrats	Nantes	70	Best quality af all
Cauliflawer	Snawball	55-70	Much difference in strains. Study catalags carefully.
"	Purple	85	Fine quality. Daes nat need tying.
Celery	Green Light	125	In a taste panel test by 30 peaple at Carnell this rated far abave all athers tested.
Carn, sweet, early	Galden Beauty	70	
midseasan	Gald Cup	80	
late	Seneca Chief	85	All fine quality
late	Surecrap	90	
Cucumbers slicing	Tablegreen	75	Dark green, white spine.
" "	Ashley	65	Dark green, white spine.
" pickling	Wiscansin SMR18	55	Light green, black spine.
Eggplant	Black Magic Hybrid	75	Hybrid vigar insures a crap mare regularly than with ather varieties
Endive, curled	Salad King	100	Large grawing
Endive, braad leaf ar escarale	Flarida Deep Heart	85	Creamy white centers.
Lettuce, leaf	Grand Rapids Tipburn Resistant	45	Crisp texture
	Salad Bawl	48	All America Selectian. Very slaw ta develap seedstalks.
	Buttercrunch	64	All America Selectian. A large, high quality Bibb type.
Lettuce, Head	Penn Lake M.T.	72	All America Selectian. Excellent far transplanting ar direct seeding.
Muskmelans	Burpee Hybrid	90	Melans are best seeded inta Jiffy pats 2 ar 3 weeks before setting in the garden.
	Saticay Hybrid	90	
Onians fram sets	Ebenezer	90	Far mature bulbs
	Silverskin	40	Far green anians
	Early Harvest	95	Plant very early far best results.
Peas	Perfected Freezer 60	70	A dark green Perfectian type
Peppers	Keystane Resistant Giant	80	Praduces many large, thick-fleshed fruits.
Radishes	Champian	28	Nat the earliest but ane af the very best far early spring ar fall planting
Squash	—	–	Yau had best study the catalags.
Spinach	America	50	A bit slaw grawing but resists seed stalk develapment.
Tamataes	Fireball (far very early)	65	Must be sprayed regularly ance a week with manzate far early blight.
	Heinz 1350	77	Fine quality and high yielding far main crap.
Watermelans	Sugar Baby	85	Good quality, dark green, abaut 8 inches in diameter.
	Hybrid 103	88	Vigaraus, early, excellent quality fruits, elangated, weighing 10-15 lbs.
	Seedless Hybrid 313	91	The best af the seedless melans. Fruits weigh 15-20 lbs.









ED EASTMAN'S PAGE

IT'S FUN!

AFTER A long hard winter in this north country of ours, how eagerly and happily we note every sign of approaching spring. Let the bitter north winds howl down the hills; let the drifts pile up and the thermometer plummet to the zero mark night after night; still we know that Old Winter can't last much longer. There are sure signs that spring is just around the corner.

When we lived on our farm, we watched every year for the sun to shine through the gap where the road went through a piece of woods just west of us. When the sun got that high, we knew he was well started on his journey to bring us again the glorious spring and summer.

When I was a boy, the surest and best sign of approaching spring was when Mother planted tomato seeds and put them in the kitchen window. Those little plants irresistably broke through the soil to reach for the sun. There is no greater miracle in nature than the way a seed comes to life and grows in the springtime. I have grown lots of tomato and other plants in the greenhouse, but none more sturdy or healthy than those Mother grew in the kitchen window.

Every fall before the freeze — up, she put two or three bushels of black, rich soil containing plenty of well-rotted humus into the cellar to use in repotting her house plants in the spring, and for growing tomato and other garden plants. When Mother was ready to plant the tomato seeds she added a bit of complete or balanced fertilizer. Then, after the seeds were planted, she put the boxes in the window, kept them watered, and let sunshine and nature do the rest.

Try it! Get your children interested. It's fun!

DO YOU CARE?

It is strange when you stop to think about it that American people will stand an impossible situation so long that it is often too late before they get mad enough to fight. Such is the case with taxes in this country. They are getting worse every day. Most of us grunt and groan at tax time, but we are like a lot of sheep; we stand to be shorn.

President Johnson has suggested to Congress a budget of nearly $100 billion with which to run the Federal government for the next fiscal year. Add to this Federal budget the terrific costs of state and local government, and you have a total tax figure beyond the imagination of any human being. No one realizes what a billion of anything is — to say nothing of over 100 billion. In arabic figures, $100 billion looks like this:

$100,000,000,000

But all of us do realize and know full well some of the discouraging effects that all of this reckless government spending means to us personally, especially now when we are making income tax reports. Of course, income taxes are only a part of the total burden. There are all the taxes on real estate — and so many indirect taxes that we can't keep track of them.

What is even more important than the heavy taxes is the loss of liberty caused by so much government. Someone has said wisely that "the power to tax is the power to destroy." Huge government spending gives the government and its bureaucrats almost absolute power over us in many ways.

I often wonder what the generations that follow us will think about the enormous government debts — by far the largest in history — which we will leave behind us. What a heritage!

What can we do about it, you ask?

For one thing, we can elect and stand by representatives — local, state, and national — who have the courage to cut government spending, and we can be sure to let our representatives know how we feel. Also, as individuals, and in our organizations and local municipalities, we can **stop asking** government for handouts.

Or — don't you care?



If you love flowers, I can't think of a more interesting hobby than growing roses. Not much land is needed, and there is an almost unlimited number of varieties from which to choose — from the beautiful tea roses to the sturdy climbers.

Three years ago we planted a red climber by the side of our front porch. It grew rapidly, and is a thing of glory during the entire season.

The first step is to get all the information you can from bulletins, books and catalogs. Then start on a small scale, and expand as you get experience.

THEY LIKE IT

No work that I have ever done has brought me more happiness than the writing of my most recent book — Journey To Day Before Yesterday. In every mail come letters, excerpts from some of which I would like to share with you.

From a reader in Massachusetts comes the following comment:

"I shall treasure your book as long as I live." And another from the same state says: "Your book should be in every library and eagerly read by the youth of today, who have no idea of the hardships and way of life experienced by their forefathers in this country."

The following excerpts come from New York State readers:

"Just love your new book!"

"Yours is the most wonderful and lovely book of the many we own."

"I read your book out loud to my wife while she was knitting in the evening. It brought back memories of the horse and buggy days for both of us."

It is nice to think that one has done something to bring happiness to many people.

The book can be purchased through American Agriculturist, Savings Bank Building, Ithaca, N.Y. The price is $5.95.

SET THE EXAMPLE

This is an appeal to parents — particularly to young mothers and fathers — to encourage your children to read from their earliest years.

When I was young, there was nothing much to do for recreation except to read. We had a good small library with such fine old stories as Washington Irving's RIP VAN WINKLE and THE LEGEND OF SLEEPY HOLLOW; Robert Louis Stevenson's wonderful KIDNAPPED; Scott's IVANHOE — and we took several magazines like the YOUTH'S COMPANION which we read very thoroughly.

Now, unfortunately, there are so many distractions for young people that too few of them do much reading except what they absolutely have to do in high school.

In recent years I have counseled hundreds of college students on how to study, and I find many overwhelmed with a lot of reading that seems like Greek because they have not been brought up with books and magazines; many find it almost impossible to lift the thought from the printed page because they have had so little experience in doing it.

So, if you want your child to be a good student and a successful and happy person, make sure that he is a reader. The best way to do this is to set the example yourself.

WHY HAVE *ANY* LAWS?

A bill is again before the New York State Legislature to increase the age limit for drinking from 18 to 21 years. Another proposal would permit hard liquor to be sold in grocery stores.

One excuse some politicians give for not supporting the age limit bill is that the law could not be enforced. All right, why then have traffic or any other laws? None of them can be enforced 100 percent.

If you are interested in protecting your young people, in putting some brakes on the rapidly-growing powerful liquor industry, write what you think to your New York State Assemblyman or Senator.

EASTMAN'S CHESTNUT

The lady lecturer paused to inquire sternly:

"Is there a man in this crowd who would be so low as to let his wife be slandered and say nothing? If so, I dare him to stand up."

A small, meek-looking little man climbed slowly to his feet. The lecturer scowled at him, and then said:

"Do you mean to stand there and say that you could let your wife be slandered and say nothing?"

The little man apologized. "I'm sorry," he said. "I thought you said slaughtered."

AA SERVICE BUREAU

BANKRUPT

"Last August I started a mail order club with the Billie Burke Club Plan of 532 E. Emaus St., Middletown, Pa. At first my members received their orders; however recently five members and myself have not received our complete orders. On writing to the company, we received letters stating they were out of the merchandise requested and asking us to re-order.

"Since the first of this year my members and myself have had all our letters returned marked refused. Could you please help us to straighten this matter out?"

During the past few months we have received a great many inquiries about this club plan, which also had offices at 38th & Derry St., Harrisburg, Pa.

We were advised by the Harrisburg Area Chamber of Commerce that the Billie Burke Club Plan filed a voluntary petition in bankruptcy at the U. S. District Court, Scranton, Pennsylvania, on January 10, 1964.

We understand that Club secretaries will be given notice, by mail, in due course, as to where claims can be filed.

DISSOLVED

Last month we printed a warning against companies which have been mailing "liquidation notices" offering big savings on merchandise, but which have no official status with the courts in any liquidation proceeding. A number of mail order concerns in California have been using this approach.

One such mail order company in New York State, U. S. Liquidators, Inc., 149 Church Street, New York City, has been ordered dissolved in an order obtained by New York State Attorney General Lefkowitz, on a complaint initiated by the Greater New York Better Business Bureau.

This company has sold more than 16,000 transistor radios by misrepresenting them as $41 models marked down to $12.50, whereas the average retail price in stores was only $12.50, and the $41 price was fictional.

U. S. Liquidators, Inc. has agreed to pay a penalty of $500, and return money received for unfilled orders.

REFERRAL SELLING

"My son told a salesman, who wanted to sell him aluminum siding for his house, that he couldn't afford it. The salesman said, if they could use the house as a model, they would give him $100 per month for 60 months to advertise the siding in this part of the State. My son and his wife signed the papers.

"A few months later, a man from the company called and told my son he would have to pay $2,700 in monthly payments. The man said they didn't know where the salesman was and that he must have been a swindler.

"My son estimated it should have cost about $1,500 to cover his house with siding. Isn't there anything that can be done to stop this?"

This is only one of a great many complaints we receive concerning "referral" selling, which is used by salesmen for all kinds of home improvements, carpeting, vacuum cleaners, and fire alarm systems.

Readers complain not only of poor workmanship, incompleted jobs, and high prices, but chiefly because the bonuses offered seldom, if ever, materialize. So often the customer has relied completely upon the bonus and cannot afford the job otherwise; however, he has signed a binding contract.

Some companies, promising returns on the referral selling plan, have gone out of business and so all agreements and payments to customers are abandoned. The customers, however, are still obligated to the finance companies.

The following letter illustrates the "referral" method used by another company:

"I have been taken in by a salesman for a carpeting company. We were to submit just 20 names and if only 2 accepted the rugs mine would be paid for. I gave them 17 names to start with and you should hear what they did to some of the people. I have written to them, but you just can't win; it's your word against theirs. They made us feel that $1,200 wasn't going to cost us any money; just work hard and submit 20 names and they would pay us $50 each for interviews, and $60 if anyone took the rugs.

"My rugs have cost me $1,200 plus $342 extra they added for carrying charges. I went to our lawyer and he told us that if we could pay it right away we could at least save the $342. So far they have sent me $260, but I know that is all I will get, because I just will not put anyone else through what I have gone through.

"Can't this kind of business be stopped? A lot smarter people than I am have fallen for the same line." Editor's note: Don't buy under the "referral" plan!

CAN YOU HELP?

Mrs. W. Ross Clark, R.D. 1, Eaton, N. Y., is trying to locate a book, which was probably written about 1860, "The Way of Holiness," by Mrs. Phoebe Worrall Palmer.

* * *

Mrs. E. E. Beckman, R.D. 1, Morris, N.Y., would like the poem that goes with the picture on old blue Willow Ware dishes — "Two birds flying high, Little boat sailing by —."

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mrs. Julie Findeisen, Garrattsville $2,250.00
(insurance settlement)
Miss Sophie Barsczeski, Sagapanack .. 5.50
(refund an club)
Mr. Lester L. Carroll, Cartland 200.00
(insurance settlement)
Mr. Robert Schmidt, Moravia..... 129.51
(payment far hay)
Mr. Floyd E. Fluker, So. Dayton 15.00
(refund of membership)
Mr. Marlon Ginney, Morrisville..... 57.77
(refund on rug)
Mr. Joel F. Wood, Bradford 24.37
(refund on drill)
Mrs. Robert E. Ferguson, Carthage 15.50
(refund on merchandise)

NEW JERSEY

Mr. Russell F. Piell, Pittstown 11.92
(refund on injectors)

VERMONT

Mrs. Bernie Frost, So. Ryegate..... 335.90
(insurance settlement)

FLORIDA

Mrs. Wesley E. Baker, Largo 10.09
(refund an order)

Benefits Paid

A friend's name may be in this list

Gary VanOerLinden, Cuba, N.Y. $ 223.45
Fractured arm
James H. Scott, Belmont, N.Y. 185.70
Truck Acc.—injured head & back
Herbert Underwood, Lisle, N.Y. 343.66
Hit by pole—injured back & head
Eva Cole, Johnson City, N.Y. 229.29
Truck Acc.—injured ankle
Vernet Krause, Great Valley, N.Y. 321.80
Crushed by bull—fractured toes
Joel Barber, Otto, N.Y. 292.86
Dragged by horses—fractured arm & ribs
Merrill Palmeter, Locke, N.Y. 831.06
Kicked by cow—injured knee
Clair Ryan, Aurora, N.Y. 457.27
Fell off wagon—fractured forearm
Louise Jowett, Jamestown, N.Y. 346.42
Slipped on trailer rack—injured hip & back
Lee Pound, Sherman, N.Y. 1415.00
Caught in baler rollers—severe arm injury
William Segar, Jr., Horseheads, N.Y. 421.27
Fell—injured shoulder, back & chest
Edson J. Austin, Horseheads, N.Y. 114.28
Power saw kicked back—injured back
William Storch, Elmira, N.Y. 657.36
Tractor Acc.—fractured leg
Sherman Oralls, Bainbridge, N.Y. 436.06
Tractor Acc.—broke arm, rib, injured back
Benjamin L. Wells, S. New Berlin, N.Y. 253.44
Fell from ladder—injured elbow
Neta Spoor, Ellenburg Depot, N.Y. 136.16
Fell—fractured leg
Hazel B. Slosson, West Chazy, N.Y. 1250.00
Fell—fractured arm, injured chest
David Button, Marathon, N.Y. 214.15
Fell off ladder—fractured arm
Gerald Steger, Preble, N.Y. 186.00
Crushed by cow—fractured forearm
Richard Fletcher, Walton, N.Y. 731.38
Kicked by cow—fractured knee
Edward R. Dunbar, Delhi, N.Y. 226.16
Fell while loading hay—injured back
Mary J. Richmond, North Collins, N.Y. 287.40
Auto Acc.—injured head, knee & ankle, arm
John R. Gernatt, Collins Center, N.Y. 278.38
Fell—injured knee
Edward Leanen, LeRoy, N.Y. 132.86
Fire in barn—burned arm & hand
LaVerne Shuknecht, Elba, N.Y. 678.56
Knocked down by bull—knee injury
Carol Johnson, Little Falls, N.Y. 735.70
Thrown from horse—badly broke wrist
Fred Grates, Frankfort, N.Y. 260.71
Run over by machine—broke ankle
Mary Sweredoski, Sackets Harbor, N.Y. 513.00
Fell—injured back & shoulder
Robin Johnson, Carthage, N.Y. 256.43
Dragged by cow—injured leg, hip & back
Barbara Tabolt, Lowville, N.Y. 751.80
Fell—severe knee injury
Myrtle Burdick, Glenfield, N.Y. 217.17
Badly cut hand on tin can
Louise Deuel, Caledonia, N.Y. 255.00
Auto Acc.—injured back
R. O. Wachholder, Jr., Mt. Morris, N.Y. 100.00
Kicked by heifer—injured back
R. Arlene Kenyon, Kirkville, N.Y. 348.00
Fell from tractor—fractured foot
John Johnson, Bouckville, N.Y. 714.20
Tractor caught fire—burned hands & back
Walter M. Yaeger, Webster, N.Y. 198.56
Slipped & fell—fractured leg
Barbara DeConinck, Rochester, N.Y. 140.00
Auto Acc.—injured neck & hip
James Dillenbeck, St. Johnsville, N.Y. 1405.00
Auto Acc.—broke leg, cut forearm
Ralph E. Hart, Amsterdam, N.Y. 964.55
Auto Acc.—fractured foot and ankle
Marie D. Moore, Johnstown, N.Y. 574.55
Fell when chair broke—injured back
Donald M. Hogan, Youngstown, N.Y. 100.00
Slipped when cranking tractor—injured arm
Bernard Bell, Oriskany, N.Y. 422.28
Auto accident—internal injury
R. Marshall Bielby, Rome, N.Y. 169.35
Slipped in milk house—injured shoulder
Charles M. Bramble, Syracuse, N.Y. 420.00
Auto Acc.—injured neck & back
Emil Keller, Manlius, N.Y. 1860.00
Run over by tractor—broke collar bone, ribs, bruises
Edna Gladding, Canandaigua, N.Y. 1000.00
Fell off ladder—badly injured ankle
James Stanton, Holcomb, N.Y. 746.82
Crushed between two cows—severe leg injury
James E. Cherry, Westtown, N.Y. 374.24
Auto Acc.—cut face & scalp, concussion
Bertha Berra, Salisbury Mills, N.Y. 190.49
Knocked down by cow—injured leg
Linus Hood, Medina, N.Y. 1577.14
Bumped head on machine—detached retina of eye
Ellen J. Pickett, Kent, N.Y. 290.07
Fell—fractured ankle
Ben M. Mack, Oswego, N.Y. 573.03
Struck by falling tree—broke ankle
Mary Bunker, Mexico, N.Y. 114.28
Pushed by heifer—cut scalp
James Winchester, Wells Bridge, N.Y. 449.50
Auto Acc.—injured back
Joseph Kersmanc, Worcester, N.Y. 1375.00
Kicked by heifer—ruptured disc in back
Alton J. Savage, Malone, N.Y. 224.28
Kicked by cow—injured ribs
Cathy A. Newton, Potsdam, N.Y. 211.06
Auto accident—fractured leg
Telly Olsen, Jefferson, N.Y. 405.00
Fell off porch—fractured skull
Catherine Lape, Cobleskill, N.Y. 544.65
Injured right knee
Harry Warne, Romulus, N.Y. 1515.00
Fell in silo unloader—broke leg & foot
June Stillwell, Interlaken, N.Y. 212.65
Fell from silo—broke bone in foot
Cameron McClary, Avoca, N.Y. 1033.05
Caught between belt & pulley—crushed hand
Anthony Smolos, Hammondsport, N.Y. .. 857.62
Fell off tractor & run over—broke pelvis, ribs
Joan Oomaleski, Mattituck, N.Y. 1120.00
Fell downstairs—broke arm & injuries
Althea Zeneski, Cutchogue, N.Y. 232.13
Overhead door came down on foot
George Rupp, Rock Hill, N.Y. 860.76
Struck by car—injured back
Charles Allen, Roscoe, N.Y. 428.40
Fell—fractured skull
Marjorie Gehm, Berkshire, N.Y. 1470.00
Freezer door came down on head—injured head, back
Kenneth Pipher, Tioga Center, N.Y. 1177.14
Fell from tractor—injured back
Paul Hoover, Ithaca, N.Y. 335.00
Kicked by cow—injured knee
Ruth W. Dedrick, Dryden, N.Y. 406.85
Fell downstairs—broke leg, heel, ribs
Frank K. Kosteczko, Gardiner, N.Y. 379.53
Kicked by cow—fractured leg
Charles Hall, Smiths Basin, N.Y. 344.61
Crushed by cow—broke ribs, bruised chest
Helen Herrington, Greenwich, N.Y. 1117.14
Fell—fractured hip
Donald Holdridge, Red Creek, N.Y. 834.00
Auto Acc.—cut face, concussion, injured ribs & foot
Jennie D. Hermenet, Williamson, N.Y. 315.53
Slipped going downstairs—broke arm
Walter Kahl, Warsaw, N.Y. 377.36
Fell from ladder—fractured ankle
Philip Wilson, Wyoming, N.Y. 181.43
Auto Acc.—cut head and hand
Rose Boag, Lakemont, N.Y. 1123.57
Fell—fractured hip
Kenneth Gibson, Dundee, N.Y. 1563.68
Truck Acc.—badly fractured leg
Norman Whitney, Tioga, Pa. 452.50
Slipped getting off tractor—injured back
Berwyn D. Smith, Crooked Creek, Pa. .. 1410.00
Hit by car—broke pelvis, multiple cuts & bruises
Lewis Van Ord, Jr., Russell, Pa. 287.06
Overcome by silo gas
Roman Leofsky, Spring Creek, Pa. 423.35
Tractor rolled over—broke shoulder, rib
Elwin Van Etten, Harrison Valley, Pa. 332.00
Fell from tractor—injured knee
Clarence Williams, Newton, N.J. 232.81
Battery ignited—burned face, forearms, hand
Marguerite Pinckney, Flemington, N.J. 294.03
Auto Acc.—cut eyebrow, concussion, bruises
Bertrand Rottkamp, Freehold, N.J. 1730.00
Auto Acc.—fractured skull, ankle, cut knee
Stella Haines, Mt. Holly, N.J. 1178.58
Fell—fractured hip
Joseph Villari, Sewell, N.J. 759.91
Fell down stairs—injured back
Francies Ames, Mansfield Depot, Conn. 276.90
Fell—fractured wrist
Eugene Hastings, Bernardston, Mass. .. 578.57
Auto Acc.—cut cheek, concussion, injured neck
Bruno Hajduk, Laneboro, Mass. 238.71
Tractor jackknifed & threw insured—broke leg
Lena Raedel, North Adams, Mass. 138.00
Tripped & fell—injured back
Robert Norstrom, Groton, Mass. 186.00
Slipped from drawbar of tractor—fractured elbow
Richard Amadon, W. Townsend, Mass. 106.92
Tailboard dropped—thumb crushed
Merle W. Carpenter, Houlton, Me. 132.00
Fell—broke ribs
George Howard, Caribou, Me. 273.85
Caught in tractor hydraulic cylinder—crushed hand
Gertrude Larry, Waterville, Me. 130.00
Auto Acc.—injured forehead, abdomen
Edna Howe, Augusta, Me. 760.00
Auto Acc.—concussion, cuts & bruises
Allyn Tucker, Concord, N.H. 981.05
Lifting on freight car door, bar slipped—injured back
Everett Adams, Charlestown, N.H. 204.21
Hit in mouth by cow—injured teeth
Retta G. Stone, Winchester, N.H. 100.00
Fell—injured elbow
John Evans, Sr., Putney, Vt. 178.73
Fell from ladder—injured forearm
Gloria Hoisington, East Dorset, Vt. 155.28
Auto Acc.—cut scalp, multiple bruises
Walter Battles, Randolph, Vt. 300.00
Thrown off wagon—broke check bone, concussion
Noah Lathrop, Bristol, Vt. 1039.63
Slipped & fell—back injury
Charlotte Jackman, East Calais, Vt. 334.28
Auto Acc.—injured head, elbow, hand

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Multi-Power lets you shift up for more speed, down for more power—right on-the-go. Power Steering lets you follow the rows with split-inch precision. Differential Lock provides positive drive to both wheels to get through slick going. On heavy jobs, the Ferguson System transfers weight automatically to the rear wheels when extra traction is needed. It's all this, and more, that lets you keep your mind on your work with The Automated Ones!

And on the MF 50, 65 and Super 90, you get the cushioned, shock-absorbing Float-O-Matic Comfort Seat, positioned up high for a clear view of the rows. The Automated Ones come with fuel-saving diesel power plants. Or with economical gas engines. See them: the 3-plow MF 35 and 50, 4-plow MF 65, and 5-plow Super 90.

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3-plow MF 50 Row Crop—MF 141 Cultivator



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APRIL 1964

American Agriculturist



"FIRESTONE FIELD & ROAD OUTPULLS THE OTHERS...AND I SAVED $57.00" *Dale Schramm, Modesto, Illinois*

AND FIRESTONE'S NEW SUP-R-TUF* RUBBER ENDS EXCESSIVE ROADWEAR

Farmers all over the country have tried them and they agree—Field & Road Tractor tires outpull other replacement tractor tires on any kind of ground. And now, the addition of *Sup-R-Tuf*, Firestone's new miracle rubber, gives you even longer wear. Only Field & Road tires offer you these exclusive features:

- 23° angle traction bar made with *Sup-R-Tuf* rubber stabilizes tread, ends excessive roadwear;
- wide-spaced traction bars give tighter foothold for unmatched pulling power;
- new tread design insures shoulder-to-shoulder contact, traction bars take hold and pull on any surface.

For more details on the tractor tire that is traction guaranteed in writing, see your nearby Firestone Dealer or Store.

*"Sup-R-Tuf," Firestone T.M.

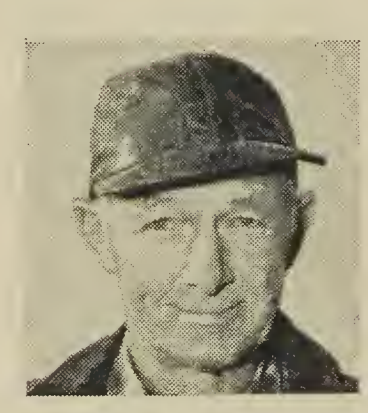
and these farm tire "experts" agree:



Louis Gruel, Hobart, Ind.: "Extra traction. Saved about $75 per set over another brand."



Max Lindauer, Washington, Mo.: "Much better traction. Have 2 sets running. No uneven road wear."



Fred Braun, Saline, Mich.: "Tires grip better. Clean good . . . both in the field and in lots."

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If, within 60 days of the date of purchase, the new Field & Road tire does not outpull any other replacement rear tractor tire you've ever bought, your Firestone Dealer or Store will (1) refund within 30 days thereafter the amount paid or (2) allow the amount paid in full credit on any other Firestone rear tractor tires. (This traction guarantee does not apply to special-purpose rear tractor tires used in rice and cane farming.) The new Firestone Field & Road Tractor tire is further guaranteed against defects in workmanship and materials for the life of the original tread. This guarantee provides for replacement of the same size and type of tire pro-rated on tread bar wear and based on Firestone prices current at time of adjustment.

Firestone

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Watch this new Ford 530 swallow heavy windrows, swiftly turn out the bales . . . 6 to 8 bales a minute. With its wide pickup and fast feeding system, the 530 handles every crop—alfalfa, straw, slippery prairie hay—with capacity to save extra tons from weather damage.

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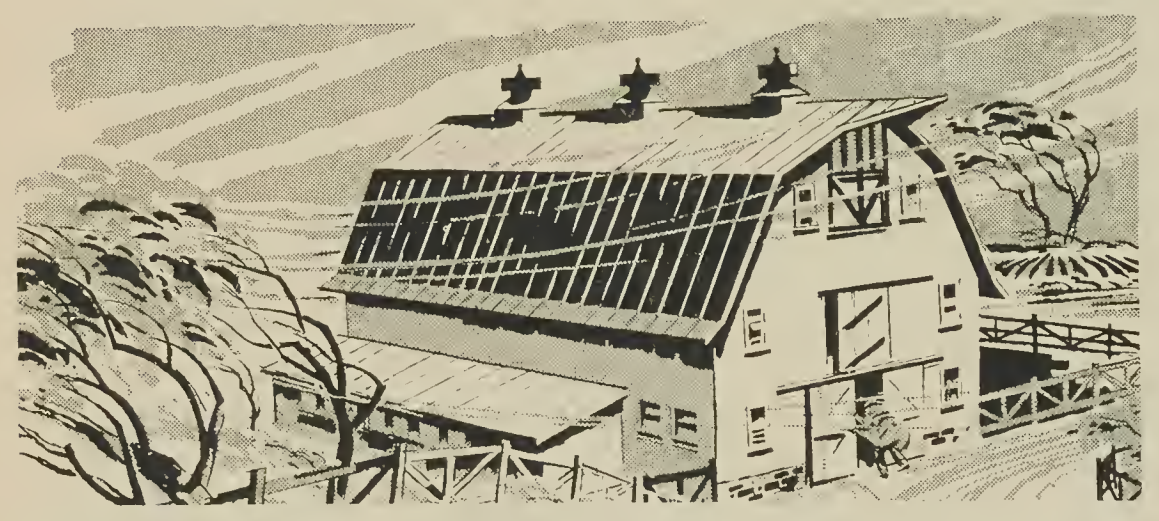
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FORD MOTOR COMPANY WONDER ROTUNDA

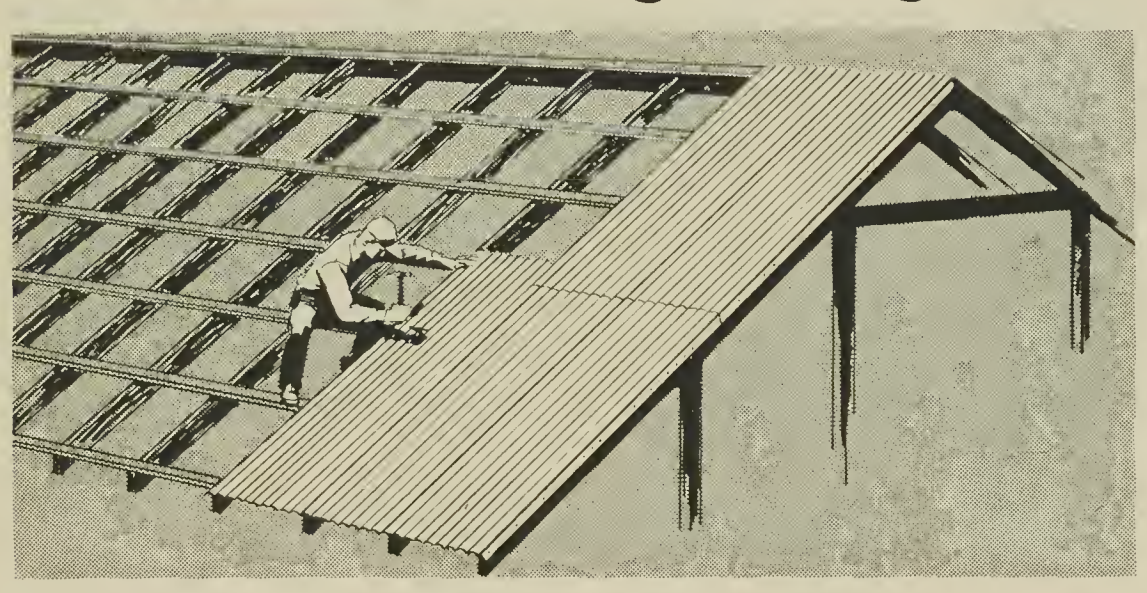
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American Agriculturist

FOR THE NORTHEAST FARMER

Volume 161 No. 4

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OUR COVER

Photographer Grant Heilman of Lititz, Pennsylvania, sent us our cover picture taken somewhere in the Keystone State. It symbolizes the start of a new crop season, hopefully an abundant and successful one.

MASSEY FERGUSON

YOUR NEARBY DEALER

PARTS AND SERVICE

Save on financing! The MF Dealers listed below will show you how quick and easy it is—and how you save—with the Massey-Ferguson Low-Cost Time Payment Plan.

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ATLANTA, Steuben Farm Supply, Inc.
AUBURN, Clark & Whaley
BALLSTON SPA, A. L. Pettit & Son Equip. Inc.
BATH, James H. Burns
BELLEVILLE, Bob Henry, Inc.
BERGEN, Kaiser-Wilcox Corp.
BLOSSVALE, Jay's Sales & Service
BOSTON, Emerling Chevrolet Co., Inc.
CANANDAIGUA, Donald J. Howard
CANTON, Hundley Farm Imp., Inc.
CENTRAL BRIDGE, J & P Imp. Co.
CENTRAL SQUARE, Central Square Imp.
CHERRY CREEK, Cherry Creek Motor Sales
CHESTER, Chester B & J Garage
CLINTON, Marsh's Farm Equip.
DAVENPORT, MacCracken Farm Supply
DeRUYTER, H. W. Cook Farm Service, Inc.
EAST AURORA, Circle Mtrs. of E. Aurora, N.Y.
EAST SYRACUSE, Northeast Tractor Sales
EAST RANDOLPH, Ed Gumienik
ELBA, County Line Garage
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MILLERTON, Scoland Farm Equip.
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WADHAMS, Lewis Farm Supply Inc.
WALLKILL, Valley Farm Supplies Corp.
WATERLOO, Finger Lakes Equip. Co.
WESTFIELD, Rammelt & Son
WEBSTER, Buckner-Miller Inc.
WILSON, Thomas Brawn
WILLIAMSON, Ralph A. Verbridge
WOLCOTT, Galvin Bros., Farm Service Inc.
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NEW JERSEY

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HIGHTSTOWN, Hights Farm Equip. Co.
LAKEWOOD, Bartolf Equip. Co.
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NESHANIC STATION, J. S. Covert & Sons
NORMA, Norma Motors
PINE BROOK, Shulman Equip. Co.
STEWARTSVILLE, Esposito Farm Machy.
WICKATUNK, Conover Bros.
WOODSTOWN, R. J. Franzen

Stop for meals. Stop for sleep. But no stops for adjustments. Now you can harvest non-stop!

These are the sensational new Massey-Ferguson Combines that breeze non-stop through every crop, from grass seed to corn. And tank more of what you grow; leave less in the field.

Because these are the ones you can fine-set to meet changing crop conditions, right on-the-go. That let you make the adjustments any good operator *must* make to harvest *all* the crop . . . without time-wasting stops! With 18 controls at the driver's seat, you can set cylinder speed, concave spacing, table and reel heights—make *every* important adjustment, without even slowing down.

All 3 combines have Saddle Tank design to hold more bushels, give better balance, traction and handling ease. With all 3 you have an unobstructed view all around. All 3 come in diesel or gas . . . with various table sizes, or with new heavy-duty Corn Heads.

See all three! The big MF 300. The new, bigger MF 410. And the new MF 510, biggest-capacity Massey-Ferguson Combine ever! And ask how you can save with the low-cost MF Time Payment Plan. Massey-Ferguson Inc., Detroit, Michigan.

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BIG—MF 300 . . . up to 13 ft. cut



BIGGER—MF 410 . . . up to 18 ft. cut



BIGGEST—MF 510 . . . up to 20 ft. cut



"Betcha that's the best smell in the whole world"

A farm boy knows about the scent of new cut hay. But he has to learn about making hay. Everything can be right—the ground, soil balance, seed, weed control, everything right as rain—but if weather won't cooperate, a man can lose a good crop overnight. What's the answer? Systems and machines that beat the weather and reduce the risks.

People at Allis-Chalmers work all their lives to help a farmer reduce his risks. That rugged new side-mounted mower, for instance, one of the famous TWIN-WHEEL Drive models that eliminates the pitman. Or the Allis-Chalmers hay conditioner that speeds curing, saves leaves, boosts palatability. The power source for both of 'em is that Big Orange D-15. The risks are always there, but Allis-Chalmers helps you cut 'em down to size.

"But Dad says it's gotta be in the barn to make money"

Dad wrapped up a whole course in farm management in one sentence. Hay's not just for smelling, it's for cutting and baling, storing and feeding—getting the best possible crop at the lowest possible cost. Dad knows it. The boys are learning it. Allis-Chalmers knows it . . . and builds for it.

In one field is a whole systems approach to haymaking . . . a meadow full of new Big Orange machines. The leaf-saving rake is building clean, straight windrows for fast, even curing. A second Big Orange D-15 powers an Allis-Chalmers 303 baler, the capacity baler with twin-rake feeding . . . nothing quite like it. Even the bale conveyor at the barn is Allis-Chalmers. Lifting, placing good, firm bales. Allis-Chalmers all the way . . . to make farming easier, to make it pay better.

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Higher Yields—Stronger Stalks—Greater Disease and Insect Resistance—Greater ability to stand the stresses of Today's Farming—

That's the Corn You Want

DEKALB® CORN

DEKALB XL-15
A true Single Cross that's Early and a Tremendous Yielder. It's also noted for its Strong Stalks and its Golden Bronze color. Plantings of from 16,000 to 18,000 recommended for heavy populations. Good resistance to Blight, Borers and Aphids. A dandy.

DEKALB 45
Here's a fine early corn that is an exceptionally balanced performer. It's a good yielder—has fine stalk quality—produces high quality grain and is excellent for use as an early silage variety. Has wide adaptability and is a good picker.

DEKALB 57
A good "all-around" variety that's hard to beat. Has excellent yield records and is noted for its superior stalk quality. Can take thick planting and heavy fertilization, for big yields of either grain or silage.

DEKALB 59
A long time favorite in the North-central Corn Belt. Its vigor, reliable yields and ability to perform well on all soils have made it in much demand. Its long ear and above average stalk height make it a fine silage as well as grain variety. Don't miss this one.

DEKALB 224
High yields and strong stalks make 224 an outstanding variety. It also has shown good ability to tolerate Borers—Blight—Aphids and Stalk Rots. Thick planting up to 18,000 recommended. Has wide adaptability and is tolerant to a wide range of thin soils. A real performer.

DEKALB 238
This vigorous variety is known for its reliable performance under a wide range of locations. It has shown fine ability to take thick planting and with very good tolerance to Blight—Borer and Stalk Rot. Ears are medium length with deep kernels. A fine picker.

DEKALB AGRICULTURAL ASSOCIATION INC., DEKALB, ILL.
Commercial Producers & Distributors of DeKalb Corn, Chix & Sorghum

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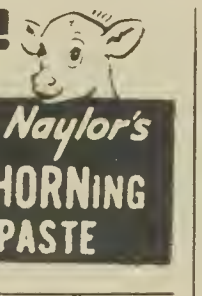
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Those who complain about the way the ball bounces are often the ones who dropped it.

When writing to advertisers be sure to mention AMERICAN AGRICULTURIST.

AA FARM DOLLAR GUIDE

RUSSELL OATS ARE BEING RECOMMENDED by agronomists at both Cornell and Penn State. The new Niagara oat is also being recommended by Cornell. Garry is still the leading oat variety, but newer ones are gaining. Coming next year is the even newer Tioga.

REGULATIONS ARE BEING TIGHTENED on use of chemicals to kill insect pests and control plant diseases. There are two reasons why you should follow directions for use: leaving poisons handy might cause a child's death; and using more than directed might cause seizure of your products or even stricter regulations.

A REPORT ENTITLED "Our 100,000 Biggest Farms - Their Relative Position in American Agriculture," Publication AER-49, is available from the Office of Information, U. S. Department of Agriculture, Washington, D.C. 20250.

PROBLEMS WITH SCALD on Delicious Apples in controlled-atmosphere storage has stimulated greater use of DPA as a preventative. Spraying McIntosh already having 70 percent or more red color with calcium carbonate increased red color by an average of 13 percent, reports Robert Smock of Cornell University.

WHEN YOU SELL THE FARM, consider selling on contract. You retain title until a deed is given, and your Federal income tax will be lower and spaced over several years. Also, arrangements can be made to have the money held by a bank in escrow and paid out to the seller at regular intervals over a long period of time.

FEED GRAIN PROGRAM HAS NEW PROVISION that payments cannot exceed 20 percent of the value of the land. This is causing some problems, particularly in areas where heavy fertilization and good moisture in recent years has resulted in high payment rates.

FERTILIZER COSTS should be calculated on basis of cost per pound of plant nutrients. On this basis, some liquid complete fertilizer being sold in the Northeast cost five times as much as dry forms with same formula.

Most agronomists agree that dry and liquid complete fertilizers are equally effective in soil applications. Foliar application of fertilizer on field crops is not recommended by Cornell University agronomists.

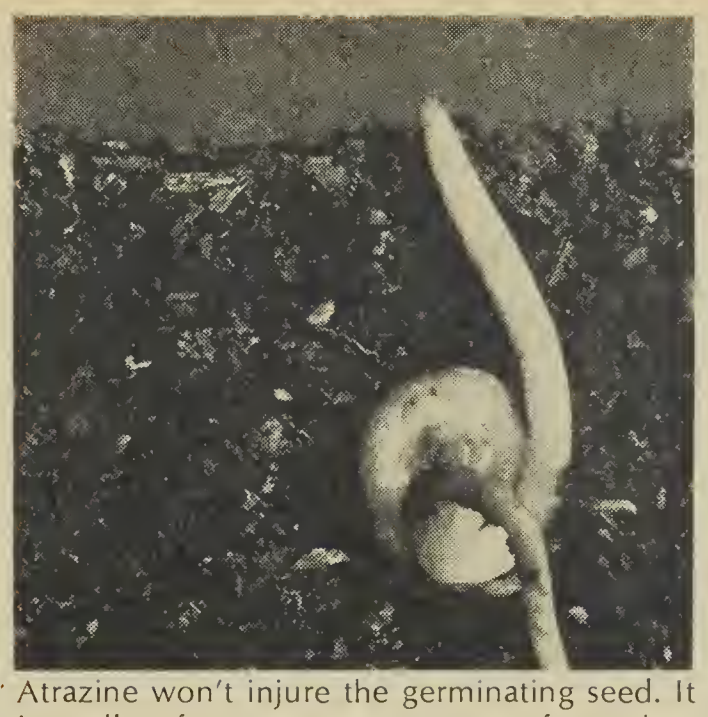
MACHINERY SELECTION HELP can be found in Circular 876 available at the Agricultural Information Office, 112 Mumford Hall, Urbana, Illinois, for 15 cents. It is a handy guideline for choosing the best size of 19 commonly-used farm implements.

The Song of the Lazy Farmer

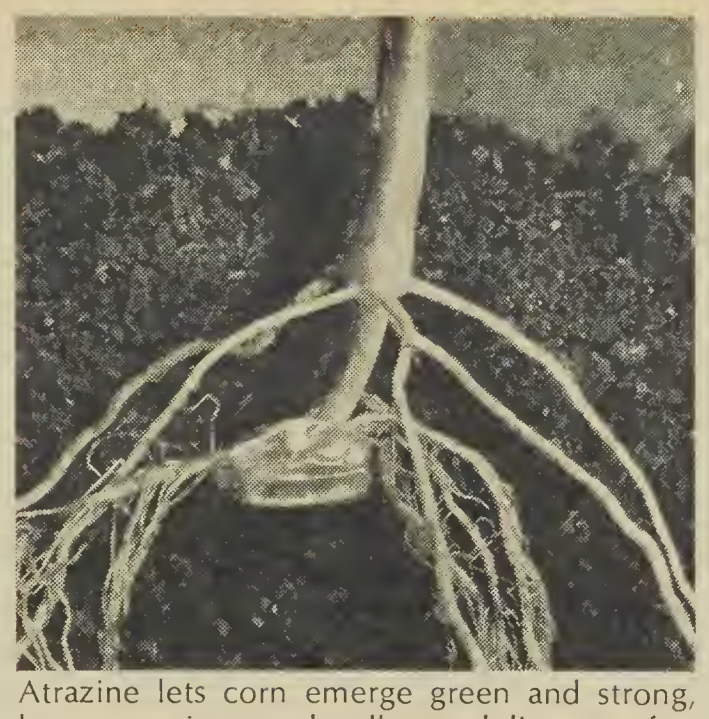


I'm working fingers all to nubs and wearing pencils down to stubs to help poor Jane Mirandy out by writing colleges about their flood of statements telling how there ain't no work to farming now. I'm asking for some facts to back their claims that these days there's no lack of ways to save on aches and pains and show a good-sized income gain. I want to know 'bout keeping books and picking cows not on their looks; I need a bulletin to show how slatted floors will make pigs grow, or how to squeeze sows in a crate and feed steers drugs to put on weight.

Mirandy's getting old and slow and so it's time for me to show her how to get the farming done and not be always on the run. Take scooping feed, o'er which she gripes—now they blow it 'round in pipes; I hear tell she can plow and plant at one time, and not even pant. I even may fulfill her dream, a tractor to replace the team. New-fangled ideas such as these should make Mirandy's chores a breeze so she'll be glad to do her work and not keep asking why I shirk. I hope they'll calm my fears that she can't run the place alone, by gee.



Atrazine won't injure the germinating seed. It is totally safe to corn at every stage of growth—from seedling to maturity.



Atrazine lets corn emerge green and strong, but competing weeds yellow and die soon after breaking ground.



Control with Atrazine extends on through the summer, freeing corn from the extra stress of weed competition during drought periods.



Atrazine works from planting till harvest, ending weed competition, helping to build yield—making your entire investment work harder.

Weed control that works all season to build corn yield . . . Atrazine

Atrazine 80W herbicide offers you the best weed control you've ever had . . . season-long control of most annual broadleaf weeds and grasses in corn with a single spray application.

Because of the way Atrazine works, it can help you produce profitable yield increases, and help you keep down costs as well.

Atrazine is especially effective because it starts killing weeds soon after application and keeps right on controlling them as the crop grows. Your corn isn't forced to compete for plant food. This means that your fertilizer investment works entirely to build corn yield, without being shared by weeds.

Why Atrazine works so well

Applied at planting, Atrazine is carried to the weed root zone by rain and absorbed through the roots of small weeds. (A shallow cultivation will assure proper placement if dry weather follows planting.) Or, sprayed after planting on emerged weeds . . . until they are about 1½ inches high . . . Atrazine works through both roots and foliage. In either case, Atrazine ends the early weed problem and then continues to kill weeds as they germinate during the season.

Use weed control to boost yield

Atrazine, applied at planting time or shortly thereafter, gives exactly the kind of weed control corn needs for the vigorous early growth that's essential for top yield. Weed control is extremely important during the early weeks following corn emergence. Intensive three year studies prove that effective control during the first three weeks of corn growth can result in substantial yield increases . . . as many as 29 extra bushels per acre. If weeds are not controlled during this period, bushels are "lost"—bushels that can't be regained, even though the corn is kept weed free for the rest of the season.

Soybeans can follow corn

Soybeans have become increasingly important in rotation with corn, so it is important that you know the facts concerning the use of Atrazine when you are growing both crops. Soybeans can follow a corn crop where Atrazine 80W has been sprayed for weed control, provided the herbicide has been used according to label directions and precautions. Reports of Atrazine injury to soybeans have almost always been tied to the use of granular Atrazine—a product no longer available.

Other benefits

The season-long effectiveness of weed control with Atrazine can save you time and work by reducing, or in many cases even eliminating, the need for cultivation. You also get insurance against adverse weather . . . because once in the weed root zone, Atrazine is effective, wet weather or dry. And with season-long weed control, you can keep most weeds from going to seed.

Weed control with Atrazine offers you the opportunity to produce more corn, more profitably . . . this year.

Ask your supplier for full details and for the new color booklet on weed control with Atrazine. Or write to Geigy.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

Geigy

CREATORS OF CHEMICALS FOR MODERN AGRICULTURE

Atrazine



EDITORIALS

by GORDON CONKLIN



WE'RE LATE LATELY

Been wondering why your American Agriculturist has been coming to you later than usual? We've been shifting gears after many decades of printing the publication in our own letterpress plant at Poughkeepsie. It is now printed photo-offset by the J.W. Clement Company at Buffalo, New York. If you've even moved from one house to another, you know how long it takes to finally get everything working smoothly — and it may have been months before you located that fancy flower vase Aunt Em gave you!

Frankly, we're burning the midnight oil trying to get used to all these new-fangled ways of doing things. Thanks for your patience!

WHAT THEY REALLY MEANT

Ever wonder about those well-worded phrases you hear in speeches, or that you read in printed form? Here are some examples, and an interpretation of what I'll bet they really meant:

What was said: "It is true that our organization finds itself sharply at variance with certain philosophies of similar organizations in this state. This dichotomy of approach, however, should not be allowed to mask the similarities of our common goals, nor preclude the very real possibilities of future unity of action. We solemnly pledge to our membership, however, that we shall never compromise the basic principles upon which this organization was founded!"

Interpretation: We'll get together when and if those birds see things our way!

What was said: "In spite of a slumping economy, stringent cost-control measures have enabled our business to embark on the road to recovery, paved with limitless opportunities for future improvement."

Interpretation: Management really dropped the ball this year when it refused to stock Beatle records, but they have had their heads examined and now can see more clearly this group's musical genius.

What was said: "Our previously uninterrupted fiscal progress ran into an unforeseen difficulty this year."

Interpretation: The manager took off for Brazil with his secretary — and the bank account.

What was said: "It is imperative that any public agency receive the unquestioning loyalty of its employees. If any employee disagrees with existing policy, whether mandated by legislation or developed by administrative prerogative, he is directed to restrict the expression of his opinions to formal procedures through the appropriate channels in accordance with Chapter CXXL, Subdivision 19, Section 76, chapters 1-213, of Handbook No. 946-A of this Department (as amended pursuant to Administrative Order 6049, paragraphs 46, 47, 48, 97, 98, 99, and 1046), issued on January 12, 1964, and subsequently amended by Administrative Order 7052, copies of which will be available upon request in the immediate future. No deviation from this procedure will be tolerated."

Interpretation: Shut up or ship out!

What was said: "This committee has appreciated the opportunity to investigate alternatives in the general area of rural zoning. While amazed at the intensity of feeling on both sides of the several issues raised, and recognizing the difficulties of obtaining consensus, we believe our activities have not been altogether fruitless. We are deeply grateful for the confidence evidenced by our fellow taxpayers in naming us to this challenging task."

Interpretation: Are we glad that's over!

What was said: "Extensive damage was done to the epithelial tissues of the mammary gland appendages, causing some degree of edema in the milk-secreting areas."

Interpretation: The cow stepped on her teat.

GOOD BOOK

Ed Eastman's latest book, "Journey to Day Before Yesterday," sold out its first printing not long after its publication. A second printing has been made, though, and it's available once more.

It's a book you'll enjoy, whether your experiences include the "good old days" or not. Humorous as well as informative, it describes the life and times of an era when living was a bit more leisurely. If you're interested, check page 40 for details on obtaining a copy.

BETTER LATE THAN NEVER

Remember the cover on the March issue of American Agriculturist showing the man gathering maple sap? Amidst all the hustle and bustle of putting an issue together I plumb forgot to give printed credit to the First National Food Stores, Inc., publishers of "Food Marketing in New England," and to that publication's editor George Moore who helped make the cover possible. Robert Holland was the photographer and, as we *did* report in the March issue, Will Atkinson of Cavendish, Vermont, was shown gathering the "sweetwater."

"THEY" DID IT

Once upon a time long ago, people in a far-off country were self-reliant and willing to accept responsibility for what they did. They even had such quaint customs as spanking their children soundly when they misbehaved, and fathers made it a point to insist that their offspring respected authority — whether parent, police, or teacher.

Years passed, and the industriousness of its people made the country flow with milk and honey. Amidst this prosperity a great change took place. Parents learned of the foreboding words "traumatic experience" from their medicine men, and began to worry about damaging with discipline the tender psyches of their children.

"Children must be allowed to express themselves," said the high priests of the new cult. "After all, they are only products of their environment and must not be held personally accountable for their actions." And so, 100,000 cobblestones from the roads had to be replaced each year at public expense because the children "expressed themselves" by throwing that many at windows and passing oxcarts.

Some of the older youths expressed themselves in jolly fashion too, hotrodding along the roads on their steeds, swiping mead at the local taverns, and gathering in deerskin-jacketed groups to jeer at passers-by.

"It's all our fault" wailed the populace. "If only we had more recreation centers in the forest and more tournaments to occupy their minds! Or more elaborate schools, or more planned programs, or something. They are not responsible — it is we who have failed!"

The once sturdy yeomen who tended the fields now quietly accepted payments from the king to produce no wheat. "We're not responsible," quoth they. "It is the King and his nobles who are to blame for making the laws. We are merely products of our time and would be fools to refuse the King's generosity — especially since he is returning part of the tribute that we have paid to him."

The poor of the land — those with only one horse in the stable instead of two —cried out, "Poverty is a curse saddled upon us by circumstances — we have no responsibility for it! We are a product of our time — why should we learn new trades when we prefer to make the bows and arrows used by our ancestors? If there are those among us who are unwilling, it is only because of the faulty chromosomes passed on by their parents — it is not their doing!"

Then one black day a man waited craftily beside a giant tree along the palace road and struck down the King with a fatal blow. He in turn was set upon next day as he was led forth in chains by one of the enraged onlookers and killed on the spot.

The leaders of the populace began an orgy of self-criticism, crying out that the assassin was merely a product of his time, the result but not the cause. The onlooker pleaded innocence on the basis of having just finished smoking a pipeload of dried milkweed leaves and not being himself at the time his dagger avenged his King. "Both were helpless victims of their environment," chanted the soothsayers. "The individual can do nothing; it is 'they' who are responsible"

APPLE FOR THE TEACHER

Not long ago I went to the Central School at Trumansburg to attend an Open House at the elementary school building. As I visited with members of the staff, it occurred to me that we parents should do at least two specific things to back up the teachers who have so much influence on the lives of our children.

Number one, we should tell them now and then how much we appreciate their efforts. One of the finest — and most neglected — greases for the wheels of living is the sincere expression of appreciation. You and I take people too much for granted in this world where there is so much to occupy our attention. Because we do, the fragile flower of marital love dies, friendships wither, bitterness grows between neighbors, and many of us never know the joy that comes from encouraging others.

Secondly, we should be as honest as humanly possible with ourselves. Our children — yes, yours and mine — can be little monsters at times. They are troubled by the same inner riptides that beset the rest of the human race.

The apples of our eye are not always "nice"; sometimes they are just plain lazy at best and doggoned rebels at worst. There are children in the class who are superior to ours in ability. Let's not expect our offspring to always be "happy" at school, and let's make it clear to their teachers that we want to know the minus as well as the plus about our children.

With such realism, parents and teachers can work together to help young people move toward technical competence, and toward those growing spiritual and intellectual dimensions which we want so much for them.



In One Season Armour Vertagreen® Proves To New York Dairyman That It Really Is Worth More

A top-grade fertilizer is mighty important to a dairyman who grows his own feed. That's why Peter Gibson, owner of the Blue Ribbon Dairy, Pattersonville, New York, used Vertagreen 15-15-15 on his silage corn last year.

In his first season with Armour Vertagreen, Mr. Gibson harvested a fine crop. He reports: "Considering the season, this was one of the best corn crops I have ever had and probably one of the best in the area, with stalks 14 to 15 feet in height and heavily eared."

It only took Peter Gibson *one* season to learn that good things happen to crops fertilized with quality Armour Vertagreen. Now, like so many other experienced farmers across the country, he insists on Vertagreen. He agrees that Vertagreen is *worth more* because it does *do more*. "Due to the increased yield shown in this crop, I am convinced that Vertagreen is worth the extra cost."

How about you? Ask for Armour Vertagreen... the complete fertilizer. Give it a try. After only one season, your profits will prove that you made the right choice.

"Worth More Because It Does More"



ARMOUR

ARMOUR AGRICULTURAL CHEMICAL COMPANY

Vertagreen fertilizer / Mixed fertilizers, bagged and bulk / Ammonium Nitrate / Nitrogen Solutions / Anhydrous Ammonia / Ammonium Phosphate Triple Superphosphate / Phosphate Rock / Armagard Pesticides



These boys are learning salable skills in a well-equipped classroom. Some of them wouldn't finish high school in an academic course. Photo: Thor

We Need Area Vocational Schools!

by E. W. Foss*

IT'S NO news that the farm has been and is being mechanized so fast it makes our heads swim. But it hasn't occurred to everyone that we desperately need to recognize that thousands of boys and girls growing up on farms won't find jobs in farming in an age of mechanization. They need vocational training to prepared themselves to join the skilled labor force in non-farm occupations.

Employment trends are toward more and more highly-skilled workers, while the need for unskilled workers drops off because machines are taking their place. If your sons or daughters are (or will be) looking for employment, their chances will be a lot better if they have both the skill and knowledge of some skilled or technical occupation. Where can they acquire these skills and knowledge?

Many of the northeastern states are now surveying, studying, or otherwise considering area vocational schools. A few areas (such as Camden County, New Jersey, now celebrating the 50th anniversary of its area vocational-technical school) have had the benefits of such schools for varying periods of years. Some of the New England states also have experience with this type of school, as in Essex and Hampden counties in Massachusetts. In New York State there are similar area schools at New Paltz, and in Westchester, Erie, and Nassau counties.

New legislation along this line has been recently considered in at least two northeastern states (New Hampshire and New York), and new area schools are being planned and built. Congress has passed and the President has signed the National Vocational Act of 1963 which paves the way for federal support of greatly-enlarged vocational programs. Supporting funds have not been appropriated as of this writing, but the overwhelming support for the Act indicates that such appropriation is only a matter of time. An area vocational-technical school may be set up to serve a territory with a twenty-mile radius usually now being served by several schools.

For efficiency and diversity of subjects offered, a minimum of 1,000 high school students (grades 10-12) within the territory is usually recommended, and 2,000 to 3,000 or more is better. Sometimes students taking vocational training attend these area schools for all of their subjects, or they may take only the vocational-technical subjects there and then join their non-vocational classmates for the other subjects, plus extracurricular activities, at their local high school.

For every ten youngsters who enter grade school only four will go on to college—though this will increase slowly. Only two of these four will graduate from a four-year college. This means that eight out of those ten not academically prepared for the professions must go into the world as laborers, clerks, skilled workers, technicians, etc. The opportunity of finding a job is not only much better if you can qualify for skilled work or technical occupations, but the wages are double, triple, and quadruple those of unskilled laborers or clerks.

An area vocational-technical school in your county can help your son or daughter to prepare for a skilled or technical occupation by day; while you (as an adult) can train or upgrade yourself during evening school. The most popular courses are auto mechanics, electronics, electrical trades, metal working, drafting, carpentry, and masonry for the boys and men; the girls and women most often choose beauty culture (cosmetology), food trades, practical nursing, and needle trades.

To meet federal and state requirements, most vocational-technical courses run for three clock hours per day — long enough to enable the student to get a "feel" of the occupation and develop some proficiency in it. Related sciences of math, physics, chemistry, and other supporting courses are a part of the curriculum.

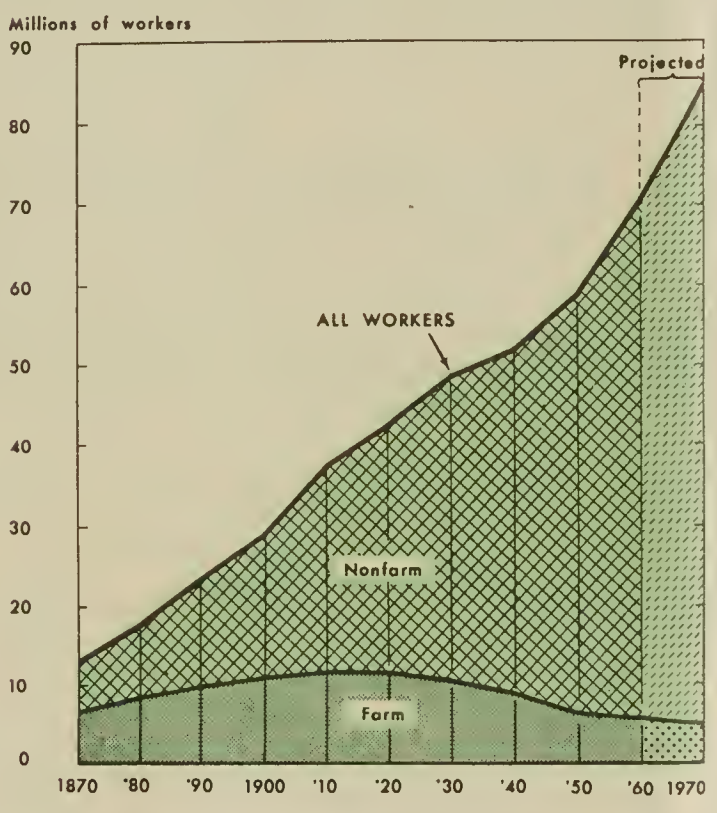
Work Training

Students at some existing schools that offer building trade curriculums design and build a complete house each year — either sold by bid or contracted for in advance. Work on "live" automobiles, radios, TV sets, as well as service to others in beauty culture and food trades, is standard practice. Area "Ag" schools not only have specialized multi-teacher departments providing training for farming, but they are introducing agribusiness programs in landscape architecture, forestry, machinery sales and repair, and

(Continued on page 18)

*The author recently completed a survey of the Ithaca, New York area concerning area vocational training.

MORE WORKERS IN BUSINESS AND INDUSTRY— FEWER ON FARMS.....



Farms are predicted to provide somewhat fewer jobs for rural young people. Many will need training for business and industry.

Here is what happens to 100 students who begin school in this country. Those 30 who drop out before high school graduation are cause for special concern in a world where demand for unskilled labor is diminishing.





Offset wheels follow basket closely.



Three models: trail-type Models 56 (shown) and 56-B, plus mounted Model 57

Offset wheels — key to cleaner raking with...

NEW HOLLAND!

See how *both* wheels follow closely behind the basket. This means the basket can dip into depressions, rise over bumps to get *more* of the crop and reduce tine breakage. Other features: Rolabar action that handles hay gently . . . optional rubber-mounted tines that offer up to 7 times the life of steel coil tines. See them soon at your New Holland dealer's — the place where better haying begins!

NEW HOLLAND MACHINE COMPANY DIVISION OF SPERRY RAND CORPORATION, NEW HOLLAND, PENNA.

First in Grassland Farming

The Anatomy of MANAGEMENT

ALL MEN are NOT created equal in management ability. Ever notice that each farm community has its share of those who run a "tight ship" and always seem to get things done on time—and done right? Then there are those on the other end of the scale who never seem to start haying until the first of July; half the hay gets wet, and the other half is bleached by the sun until most of the leaves fall off when it is finally raked and baled.

Managing a farm is something like pitching horseshoes—some men do it better than others. But anyone can sharpen his ability to make ringers—or dollars—by understanding some of the principles involved and by watching the "old pros" who have spent years learning about what works and what doesn't.

Here are some comments by farm management specialists from various states of the Northeast in answer to this question, "What are the common denominators of good farm managers?" Through taking part in farm management study groups and other Extension activities, these men have learned the financial details of thousands of farm businesses—both for a given year and for a series of years. They have come to know pretty well hundreds of farm families who have made high incomes from farming in spite of the cost-price "squeeze" in agriculture.

C. A. Bratton,
Cornell University

IT IS MY OPINION that a person needs certain basic inherent qualities to be a good manager. Being in farm management educational work, I have a strong conviction that people can improve their managerial ability. However, the native abilities determine to a great extent how really successful a person will be. To be sure, all of us must manage. In turn, all of us can improve our skill at managing. Not all of us, however, will become top managers.

There are several characteristics which a person must possess if he is to become a top manager. First of all, he must be a self-starter. He must have the ability to see things on his own and he must be energetic — willing to work on challenging things. The individual must be a risk-taker; a person who wants security is not likely to become a top manager. A manager must be one who likes to explore the untried; he likes to investigate and in turn this makes him progressive. Also, a good manager must be one who has the ability to look ahead so he will be ready for the next move.

Among some of the other traits that I would list is that of a sense of judgment. Some people seem to naturally possess the ability to size up situations and make judgments; others just never seem to be able to do this. Some people get caught in the details and fail to see the whole picture; a good manager must be able to see all things that are involved and weigh different courses of action. Along the same line, a good manager is alert and knows what is going on. In this way, he knows when a new alternative comes along.

Still another trait is that of the ability to make decisions and then to act. Many operators or would-be managers just never can bring themselves to making a decision; others make a decision and then cannot bring themselves to act upon it.

Lewis E. Clark,
University of Maine

AFTER HAVING given a considerable amount of thought concerning the attributes of "top management," I sense that I'm attempting to describe a combination of a saint, Einstein, Solomon, Job and Superman. When we talk about "top management" we are attempting to define a unique combination of abilities possessed by an individual. For comparative purposes, the quality of management is relative with respect to total management ability and the pieces that make it up.

First, it is important to recognize that the farmer does not and probably never will have at his command a kit of production relationships that can be applied directly to the solution of his management problems. In fact, precise input-output relationship information is virtually non-existent in readily usable form at the research level to say nothing about the complex matters with which the farm business manager must deal.

Since management decisions must be made in a changing economic environment, man-



Management is an endless series of decisions. Winton Baines (left) and John Duddleston of Trumansburg, New York, discuss which field to plant.

agement is a continuing process. "Top management" recognizes change as opportunity and not something to be resisted to the bitter end.

Since he is concerned with change and the weighing of economic alternatives, a "top manager" must have a high level of analytical ability and a logical mind. Ability to give priority (first things first) and flexibility (the ability and time to turn around) are key elements in the management picture.

A keen sense of observation is a valuable management asset. The biblical saying that "the eye of the master fatteneth his cattle" should not be underrated. Common sense (the ability to "sort the wheat from the chaff") pays off at the management level. Other attributes which apply include imagination, drive, ingenuity, foresightedness, determination, resourcefulness, and integrity. Sales resistance and thrift play their roles.

Being a good coordinator and husbandman of plants and animals, although important, does not overshadow other aspects of "top management." The top manager is an informed citizen alert to the social and economic environment surrounding him. In this capacity he willingly accepts leadership and "followership" roles. As an employer, he recognizes human dignity and individuality, is fair and rewards good performance.

These thoughts would be incomplete without remembering the look of shock on the face of one of Maine's top purebred cattle breeders when asked by a visiting farm management student if he had "beefed" a particular brood cow that had contributed to his success. The student was informed that the cow had been mercifully laid to rest.

Silas B. Weeks,
University of New Hampshire

I DO NOT feel prepared to comment about "good" managers, but I have a strong belief that "exceptional" managers are a unique breed of people. I have reached the conclusion that they have a sort of "x" factor in their makeup; that essentially the organization and operation of a business is a challenge in itself and not much related to either the product forthcoming or the specific rewards. By this I mean the most successful, aggressive risk-takers in any line of work—farming or otherwise; it is essentially by chance that they happen to be in farming rather than some other occupation.

These people are challenged by challenge; their main interest is essentially to "see if they can do it." They are never satisfied; the operation is never big enough, never has enough of the latest technology, is never efficient enough, etc. as far as they are concerned.

Frederick A. Hughes,
The Pennsylvania State University

I FEEL the good manager gains much of his ability from his interest, background, and business sense. I believe a manager must like livestock or crops to do a good job. If he lacks this interest, you will never make a good manager out of him, but with the interest and learning ability he can learn new practices and technology which will improve his management. The farmer who obtained sound training from his father on management of crops and livestock will usually be a better manager than the person raised observing poor management conditions.

A manager will improve if he uses and understands sound business principles. It is hard to change a person who is poor with financial matters. Too many farmers do not realize they are running a business involving many resources that must be combined properly for top profits. It is seldom that a sound businessman would buy a machine that would not return a profit. Many farmers will buy a machine only for the sake of convenience, rather than considering profit and loss.

The manager of today's farm must have more training and background than the farmer of twenty years ago. He must have a greater knowledge of the basic principles of farm organization if the "factors of production" (land, labor, and capital) are to be combined into a profitable unit. Having combined these things into a sound program, a good manager must know what practices to follow. He must keep up with the latest on growing crops and feeding livestock, especially cost-price relationships.

For example, the drought in Pennsylvania in the summer of 1962 made it more economical to switch to heavier grain feeding because of high hay prices. Good managers rationed their forage by planning their needs in advance and by replacing hay with grain; those farmers got by without purchasing $50 hay.

The purchase of labor saving equipment and improving building layouts require some calculations to find the best choice. More complete farming records than were kept by farmers in the past will be needed.

The better manager is usually more community minded and a leader in organizations. This is partly because people look up to him because he is a good manager, but primarily because such a man can arrange his farm work to find time for community and organization work.

Dwight K. Eddy,
University of Vermont

Top managers, for the most part, are born and not made. Many will argue that they weren't born with this knack, but you can bet it was developed early. Sure, farmers can improve their managerial abilities, but really top managers seem to be born with this skill. Fifty years ago they would have been known as good horse traders. They seemed to see all the implications of the present trade and the possible future trades (resulting from the present one) that would improve their relative position.

The top manager of today seems to see his farm as a whole unit and understands the function of all the parts that keep it going smoothly. He knows that change is normal and he seems to sense the adjustments that need to be made on his farm and their logical sequence. He is also aware that one change always forces another and has done enough thinking so that he is in a position to make an intelligent choice when the time comes.

The average manager all too often sees the farm as individual pieces of a puzzle with a rather poor understanding of how they fit together. He doesn't think through what the effect of a change in one area of the farm will be on the total business. Necessary changes that are foreseen and seem logical to the top manager seem to take a poor manager by surprise. Changes seem to be made in spite of him instead of guided by him.



Miles Houck of Wayne, New York, finds his well-equipped farm office a big help in calling the shots on his farm.



He's signing a deal for a $6,000 piece of equipment! The dollars involved in farm management decisions make farming "big business" these days.
Photo: Ford Motor Company

It takes a heap of horses to bale hay at today's clip! High speed and revised dimensions of new pto shaft provide added wallop to high-power-using machines like this.

The ABC's of PTO-RPM

by Wes Thomas



No, this isn't about a new federal agency. It's the latest on tractor power-take-off changes - and how you can use the advantages these changes offer.

SOME FORM of "live" or independently controlled power-take-off is available on practically all current-model tractors. Independent control of the pto greatly increases its usefulness, as compared to the earlier transmission-driven version. It provides most of the advantages of a separate engine on a baler, combine, or forage harvester without the disadvantages of buying an engine with each machine and using it only a few weeks each year.

Industry-wide standards for pto hookups are followed by tractor and implement manufacturers. Thus, you can readily connect a machine made by one manufacturer to a tractor made by a second manufacturer.

Two Standards

However, at the present time there are two standards in use. These are often identified by the shaft speed. The older, long-established standard speed is 540 rpm (revolutions per minute). The more recently-established standard has a shaft speed of 1,000 rpm. Eventually, the 1,000-rpm version is expected to be the one standard; but during the extended changeover period while existing tractors and machines are still in service, the two standards will continue.

The power requirement of early pto's, intended to operate such machines as binders and mowers, was very low — usually less than 10 horsepower. The 540-rpm shaft speed just happened to work out conveniently with the existing transmission gears, as well as being a convenient speed for power input to the binder.

Thus, the present older standard provides for a pto speed of 540 rpm, and 1-3/8 inch diameter shaft, with six splines. Permissible range of vertical distance between drawbar and shaft, horizontal distance between shaft and drawbar hitch point, and lateral offset are also standardized among the various manufacturers.

However, the advent of pto-driven machines with high power requirements, such as the combine, baler, and forage harvester, seriously taxed the capacity of the earlier drive arrangement.

Power transmitted depends upon rotational speed of the shaft and the torque, or twisting force. The torque-transmitting capacity of the shaft depends upon its diameter. So, to transmit more power, either the size of the tractor pto shaft or its speed of rotation must be increased. Either alternative destroys direct interchangeability with the 540-rpm standard.

For a variety of technical reasons, increased speed seemed to be the better course of action. It was also logical to include other changes which provide for increased safety by better shielding, as well as changes to provide for easier hookup of the tractor and implement.

Some Differences

Here are the ways in which the two standards differ, and the advantages which the 1,000 rpm standard provides:

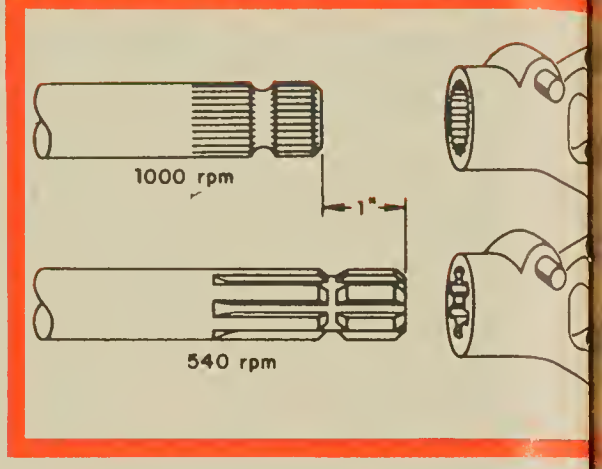
1. Speed of rotation, stepped up from 540 rpm to 1,000 rpm, is the most obvious difference. Nearly twice as much power can be transmitted at 1,000 rpm without an increase in pto shaft diameter.

2. The spline on the tractor pto shaft has six teeth for the 540 rpm speed, and twenty-one teeth for the 1,000 rpm. The twenty-one tooth spline has much more "shallow" teeth, thus leaving more effective shaft size for power transmission. The difference in numbers of teeth also prevents accidental attaching of a 540-rpm machine to a 1,000 rpm tractor shaft. Such a hookup would almost inevitably result in serious damage to the implement.

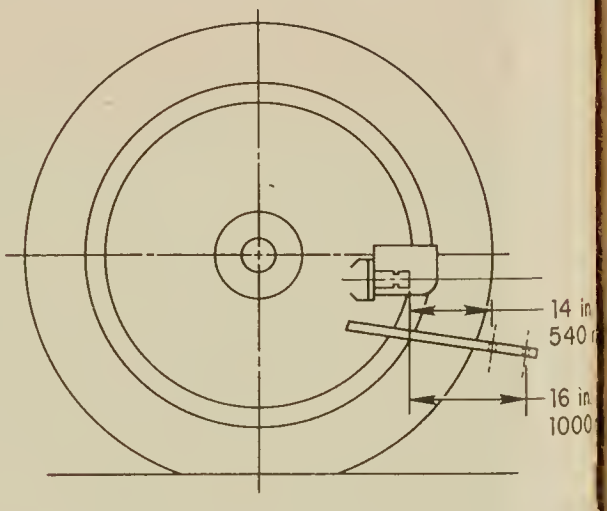
3. The maximum permissible lateral, or sideways, offset of the tractor shaft from the tractor center line is three inches for the 540 rpm and one inch for the 1,000 rpm. The range of permissible vertical distance from the drawbar to the shaft is six to fifteen inches for the 540 rpm, and six to twelve inches for the 1,000 rpm.

4. The horizontal distance between the end of the tractor shaft and the drawbar hitch pin hole is fourteen inches for the 540 rpm and sixteen inches for the 1,000 rpm. The 1,000 rpm arrangement provides sufficient space between the two forward universal joints in the implement shaft for the implement manufacturer to provide a telescoping shaft between these two "U" joints. This improves ease of hooking-up of the imple-

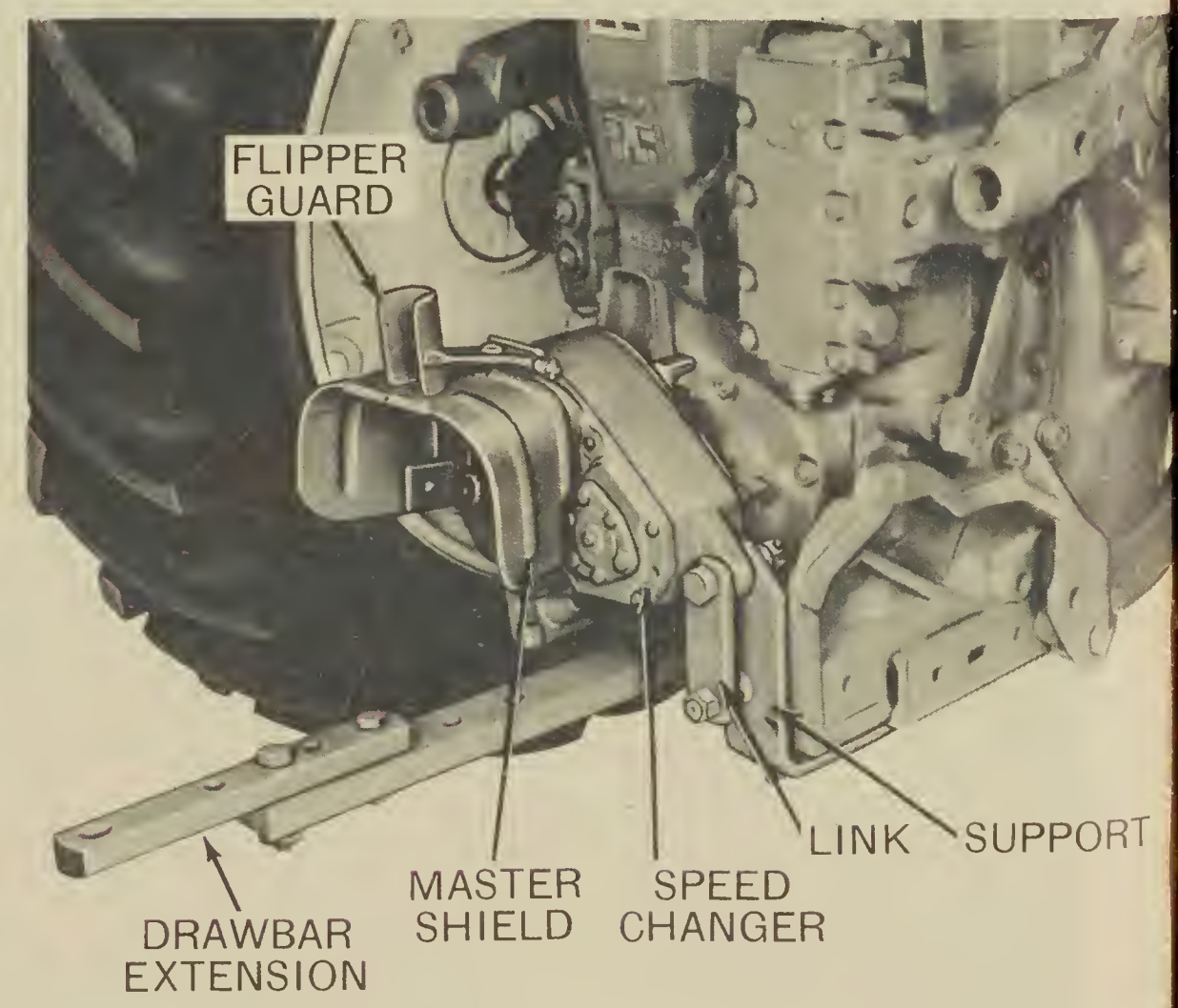
(Continued on page 22)



Newer 1,000-rpm pto shaft has a 21-tooth spline, compared to a 6-tooth spline for the older 540-rpm shaft. The high-speed tractor shaft is one inch shorter than the slower speed shaft.



The distance between the end of the pto shaft and the tractor drawbar hitch pin is 16 inches for the 1,000-rpm standard, and 14 inches for the 540 rpm.



A gear box which can be attached or detached easily can be used as an external speed changer. In most cases, it can be used either as an increaser or decreaser, depending upon how it is hooked up.

New York CHECKERBOARD NEWS©

...From the Purina Service Centers serving New York farmers

The Checkerboard . . . symbol of service since 1894

Purina's Checkerboard trademark was born in St. Louis in 1894. As time passed, red-and-white Checkerboard stores and Purina branch plants dotted the map. Checkerboard trucks crisscrossed highways, piled high with Checkerboard bags for delivery to feeders.

WHY? Solid growth comes from filling real needs. Purina grew because it was founded on a sound principle—the use of better balanced rations to produce more meat, milk and eggs at lower cost.

We are proud so many of you have depended on Purina Chows for so many years. That's proof we've served you well. Shoddy, "just-as-good-but-cheaper" products come and go. Those offering honest value and real service stay in business and grow and prosper.

The "four-square" principles of Purina's founder, William H. Danforth, never-ending research, strict quality control, the skill of our millers, scientists and engineers in mixing today's complicated formulas with amazing accuracy are "extras" you get in the Checkerboard bag.

Look for the man with the Checkerboard tie. When a man wearing a red-and-white Checkerboard tie calls at your place, give him a minute of your time. He will have latest Purina Research information. He offers Purina feeding programs that have proved profitable to thousands of feeders. He represents valuable local, independent dealer services. Tell him about your operation . . . your problems. He may have an idea or products to solve them. Welcome the man with the Checkerboard tie. He's a man worth knowing!



BREAK-THROUGH AT PURINA RESEARCH FARM

New Purina Least-Cost Performance Chows increased poultry income 3 ways!

Good news for poultry farmers. Purina scientists have just made a major advancement in poultry feeding. The result—important savings in growing costs . . . more eggs and more income from laying hens . . . in cost comparison studies at the Purina Farm.

New information gained in 5 years of basic nutrition feeding studies has enabled Purina scientists to develop new Least-Cost Performance formulas for our major Starting, Growing and Laying Chows.

Visit your Purina Service Center for more information about this important breakthrough which will lower production costs of many farmers with good birds, good management and an eye for lower production costs.

Clean, disinfect dairy utensils with PURINA i-O DAIRY

Kill harmful bacteria on milking machines, dairy equipment and bulk milk tanks with i-O Dairy. This iodine detergent-cleaner-milkstone remover meets U.S. Public Health Service Milk Ordinance and Code recommendations.

Some dairymen use i-O Dairy solution as a flank and udder wash before they milk, as a teat cup rinse, and as a Purina disinfectant.

i-O Dairy offers these "built-in" advantages:

- Active in cold water
- Very stable
- Kills many kinds of disease germs
- Effective in hard water

Purina Service Centers carry i-O Dairy in quarts and gallons.



LOW COST PRODUCTION . . . the reason why more farmers feed PURINA®

Vocational schools

other fields. Connecticut has several of these schools, and there is one in New York State at Malone.

Such area schools also bring together enough students to justify the purchase of business machines such as multilith offset printing equipment and data processing machines for the business-secretarial curriculum. Senior students often start employment under the federally-sponsored Cooperative-Distributive program in charge of a coordinator who guides these students both in school and while on the job.

In almost every state some schools have this cooperative program between schools and local businesses. Students spend part of the school day on academic subjects, part in on-the-job training. Girls train for secretaries, store clerking, etc., and boys learn to handle jobs in machine shops, garages, etc.

Interested?

If you are interested in an area vocational-technical school for your community (and industries are attracted to a community that has trained manpower) call your school principal or superintendent and make known your interest. Perhaps a survey is underway — possibly you can join with other interested citizens in the local PTA to form a study committee under the guidance of a school administrator.

As a final comment, I must add that all of these curriculums not only provide an education that prepares the boy and girl for a skilled or technical occupation, but they tend to stimulate the interest of the student by a "doing" type of activity. If you question this, just visit a vocational program sometime and watch the activity and interest of the boys and girls. Remember that 30 out of every 100 students drop out of school before finishing grade 12; vocational training will encourage some of these "dropouts" to graduate.

Too frequently, adults are so concerned by the false status of the white collar jobs (that often pay less than the skilled occupations), that our children are steered away from the vocational-technical programs. This can discourage the boy or girl who has a natural interest or aptitude in this direction and can cause him to drop out of school without graduating. We can't afford to waste our most valuable national product — the potential of our children — in this way.

STAR FARMER OF AMERICA

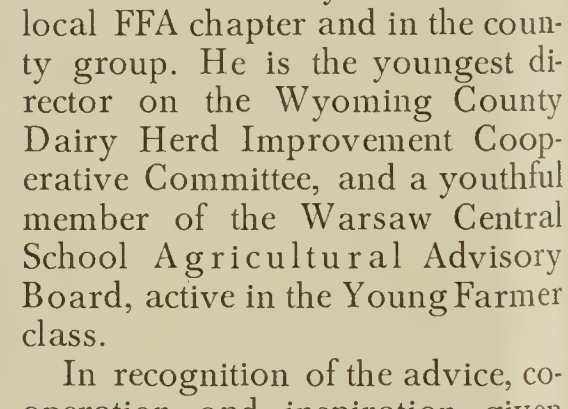
Robert A. Cummins of Warsaw, New York, was a rural non-farm boy with a strong hankering to be a farmer. When riding with the other boys on the school bus Bob would listen enviously to their talk about their farming programs. And helping out at Clifford Elwell's farm next door only strengthened his interest in farming.

When he entered high school he enrolled in vocational agriculture and joined the FFA. As a senior he won a contest sponsored by "Milk for Health" which took him on a two-weeks study of farming in Russia, and he also won the FFA Foundation Farm Proficiency Award in electrification.

Gradually Bob developed a supervised farming program which has led him into full-time farming for his chosen profession. He continued to help Mr. Elwell, and it was a big day in his life when he became a one-third partner in the 200-acre farm.

Since he graduated from high school Bob has been farming full time, but is also vitally interested in activities other than farm work. He has held many offices in his local FFA chapter and in the county group. He is the youngest director on the Wyoming County Dairy Herd Improvement Cooperative Committee, and a youthful member of the Warsaw Central School Agricultural Advisory Board, active in the Young Farmer class.

In recognition of the advice, cooperation and inspiration given to Bob Cummins, the honorary degree of American Farmer was awarded to Mr. Elwell. This high honor for a non-member of the FFA is a first in the nation for a cooperating farmer to receive in the making of a Star Farmer of America. Also commended for his part was George W. Keller, vocational agricultural instructor at the Warsaw Central School.



Bob Cummins and his vocational agriculture instructor, George W. Keller, Warsaw High School. Bob gives credit for much of his success to Mr. Keller's encouragement and advice.

LAND BANK AND PRODUCTION CREDIT LOANS THROUGH 69 OFFICES

NEW ENGLAND

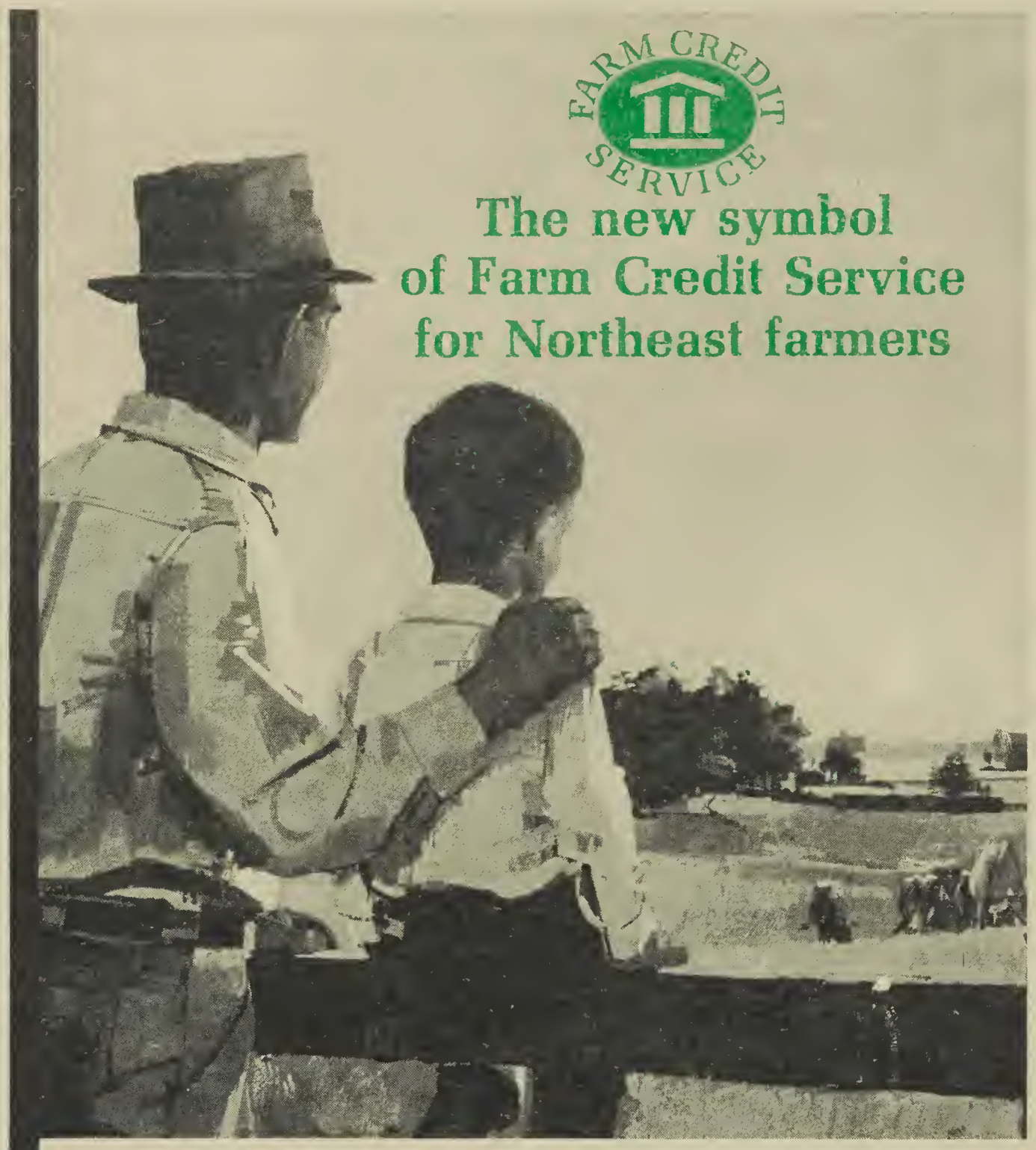
Auburn, Me.
Caribou, Me.
Ft. Fairfield, Me.
Houlton, Me.
Madawaska, Me.
Newport, Me.
Presque Isle, Me.
Nashua, N.H.
Burlington, Vt.
Middlebury, Vt.
Montpelier, Vt.
Newport, Vt.
Rutland, Vt.
St. Albans, Vt.
St. Johnsbury, Vt.
White River Jct., Vt.
Rutland, Mass.
So. Deerfield, Mass.
Taunton, Mass.
Greenville, R.I.
Hartford, Conn.
Litchfield, Conn.
No. Windham, Conn.

NEW YORK

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Albion
Auburn
Batavia
Bath
Binghamton
Canandaigua
Canton
Cobleskill
Cortland
East Aurora
Ft. Edward
Fultonville
Herkimer
Horseheads
Hudson
Ithaca
Kingston
Lafayette
Liberty
Lockport
Lowville
Malone
Mayville
Mexico
Middletown
Mt. Morris
Morrisville
New Hartford
Norwich
Olean
Oneida
Oneonta
Owego
Penn Yan
Pleasant Valley
Riverhead
Rochester
Sodus
Warsaw
Watertown

NEW JERSEY

Bridgeton
Flemington
Freehold
Moorestown
Newton



YOUR BEST SOURCE FOR PRODUCTION CREDIT—
Production Credit Association

When you need money to finance short or intermediate-term needs, go to *Farm Credit Service* for PCA loans. Interest costs are low, payments are scheduled to fit your income, you can prepay without penalty. You'll find this farmer-owned association understands your credit needs.

YOUR BEST SOURCE FOR FARM REAL ESTATE LOANS
Federal Land Bank Association

When you need a long-term loan to buy land, improve your farm, or refinance debts, contact your FLBA through your local *Farm Credit Service* office. This association provides a dependable source of long-term, low-cost credit to help boost your farm's profit.

FARM CREDIT SERVICE
NEW SYMBOL FOR AN OLD FRIEND
FARM COOPERATIVE CREDIT

News and Views from

NEW YORK AND PENNSYLVANIA



Virus-Free Cherries – Six New York State nurserymen have cherry trees eligible for certification as virus-free stock. The trees have been grown under the observation of the State horticultural inspectors.

The trees cost more to produce, and hence may sell at a somewhat higher price than ordinary nursery trees, but the extra cost is a small price to pay for the disease protection you obtain. Talk with your nurseryman about certified trees.

Program Helps – Private groups, educational institutions, and government agencies with an interest in conservation can now get a kit of materials designed to help them develop programs. It is the outgrowth of the state-wide Forest Land Use Conference held in New York recently. If interested, write to the New York State Forest Land Use Conference, 2 West 45th Street, New York, N. Y. 10036.

Boot Strap – The average American set a new record for beef consumption last year, 96 pounds per capita. T. H. Patton, Extension Director at The Pennsylvania State University, emphasizes that this is one way to boost the State's economy. Part-time and low-income farmers can readily adapt to a beef cow herd because it does not demand a high investment in land and equipment. Most farms, he says, can handle beef cows with the facilities they already have.

Tribute – The New York and New England Apple Institute has been honored by the Television Bureau of Advertising for " outstanding performance in the art of total communication to promote an industry through advertising." For the last several years the Institute has been advising people through television of ways to enjoy apples.

Family Business – Privately-owned, commercial recreation enterprises in New York State are on the rise, and the majority are family operated, according to a survey by specialists at Cornell University. In 72 businesses in 33 counties, 90 percent family labor was used, and in 70 percent of the cases family labor supplied more than three-fourths of the total labor. Children are a big help, and an interest in people is a common trait. People can consult the survey report at their county agent's office, at the SCS offices, ASCA offices, Farmers Home Administration, and Production Credit Association headquarters.

Mouse Control – Dan Dalrymple, New York's Associate Commissioner of Agriculture, reports using endrin on his home fruit farm as one of his mouse control methods. He sprays a band 10 feet wide around the outside of an orchard, and then uses poison corn inside the band. He says the band kills migrating mice, and therefore holds back reinfestation after the population has been cleaned up by the poison corn.

New Program – Careers in commercial farming and in businesses serving farming will be stressed in a new two-year opening this fall at The Pennsylvania State University. The training will award an associate degree in agricultural technology with a major in agricultural business. Details may be obtained from the Dean of Admissions, The Pennsylvania State University, University Park, Pa.

New Slate – Officers and directors for 1964 of the New York Association of County Agricultural Agents are Russell Hodnett, Watertown, president; Ernest Cole, Ithaca, vice president; Gilbert Smith, Penn Yan, past president; Leslie Nuffer, Fort Edward, secretary-treasurer. Directors; William E. Worth, Norwich; Russell G. Parker, Mount Morris; Donald A. Thompson, Troy; Earl D. Howes, East Aurora; Norman J. Smith, Mineola; and Ralph Geiger, Oswego.

Star Poultry Farmer – John Peterson (19), FFA member and poultryman, Dryden, N. Y., was named as the Northeast's "Star Poultry Farmer" at the annual meeting of the Northeastern Poultry Producers Council. Income from John's egg production projects during four years came to $2,421, and his accumulated assets during that period amounted to $4,530. In addition to rearing 1,000 layers annually, he operates his own retail and wholesale operation for eggs, including door-to-door deliveries. He has been an officer in 4-H Club work for ten years, a Cortland County Club leader, and been winning judging and poultry show events for a number of years.

* * *

A mimeographed copy of a study entitled "Free Stall Housing in New York State" is available free to interested dairymen. Write to the Agricultural Economics Department, Cornell University, Ithaca, N. Y. for a copy of A.E. Res. 122.

YOUR GLF PETROLEUM REPORT

- the new GLF Green Diesel Fuels—what users say about improved power, engine efficiency
- two new GLF Multi Service Greases—for a wider range of tractor use



GLF Green Diesel Fuel pulls five 14" plows at one gear higher

Mr. William Coles, dairyman of Monroeville, N. J., says "GLF Diesel Fuel brought our tractors to life. It has allowed us to pull five 14" plows at one gear higher than previous fuels we've used. In fact, we could discover no difference in the performance of diesel fuels—until we tried GLF."

GLF Green Diesel Fuel additives increase power, engine efficiency

One of the additives in the new GLF Diesel Fuel is Amyl Nitrate, a chemical that causes the fuel to ignite *at regular intervals*, and *at the right time*.

Without this additive, diesel fuels tend to explode a little early and/or a little late, either when the piston is not yet up to the top of its stroke, or when the piston is past its peak, and on the way down. Thus, piston strokes are weak, the engine loses power, and burns excessive fuel.

Absolutely no injector trouble with GLF Green Diesel Fuel . . .

says George Ulrich, owner of the Malt Beverage Express at South Lima, N. Y. "We previously had considerable trouble with fuel injectors in our fleet of trucks. None since changing to GLF Diesel Fuel. Smoke has been reduced and we notice that our engines now develop full power."

The Injector Lubricant Additive in the new GLF Diesel Fuel keeps injectors free from deposits. These deposits build up fast when no Injector Lubricant is used. (An injector which is even partially clogged with deposits will "dribble" some of the fuel into the chamber, causing a smoky exhaust from incompletely burned fuel. This leads to higher fuel bills and loss of power.)

No starting problems

Mr. Ulrich says, "In the last 11 months we've used 60,000 gallons of GLF Diesel Fuel. During winter operations, we've experienced no starting problems. It's the best all round diesel fuel we've ever had."

New GLF Multi Service Greases

Two new automotive greases have been added to the GLF line. They are designed for specific and particular grease requirements.

GLF Multi Service Grease #1 has a body density that is right for year-'round weather conditions, tight-fitted bearings. It is a high quality grease made with high grade oils, and has extremely good resistance to pounding.

GLF Multi Service Grease #2 is denser in body than #1 . . . to be used in worn or loose-fitted bearings such as universal joints, water pumps and wheel bearings.

Ask your GLF Petroleum man to help you select the grease that will perform best for you.

Make sure your tractor runs right when you need it. Get all of your diesel supplies from GLF. GLF diesel fuels and oils are made to give your tractor more power, higher operating efficiency, and longer life. *Cooperative GLF Exchange, Inc., Ithaca, N. Y.*

GLF Quality

PETROLEUM PRODUCTS & SERVICES



Artificial insemination is being used more widely on beef cow herds to speed up genetic improvement. Carcass traits, weight at weaning, and efficiency of feed use are all involved.



Dr. Ray Woodward of the American Breeders Service traces the ribeye of a progeny test carcass.

Here's the latest on

AI FOR BEEF CATTLE

by Dr. W.A. Cowan*

AT THE 1963 International Livestock Show, the Grand Champion Carload Lot of Steers was exhibited by Karl and Jack Hoffman of Iowa. All of these Angus steers were the result of artificial insemination on the Ted Jennings ranch at Miller, South Dakota.

About one of every 90 beef females of breeding age in the United States was bred artificially in 1963; this program is only in its infancy. It has taken twenty-six years to reach the point where four out of every ten dairy cows are bred artificially in this country. How long will this take for beef cattle, if ever?

The problems of artificial insemination in beef cattle are more difficult than with dairy animals. As it was once with dairy cattle, widespread use of AI in beef cattle may well await further technological progress.

One thing is sure — beef breeders and artificial insemination organizations in recent months and years have given increasing attention to the problem and its possibilities — particularly since the advent of frozen semen. Many are now selling semen from progeny-tested bulls. Commercial producers who have used artificial insemination for a 20-50 day breeding period usually have used a "clean-up" bull though, to make sure of a full calf crop.

Why AI?

Commercial beef producers will use artificial insemination if it will help increase their net profit. Its greatest advantage is in enabling large numbers of cattle to be bred to fewer but better bulls, increasing the "selection pressure" in cattle improvement. In short, it is a matter of economics.

As with many other new methods, it will result in black ink on some farms and ranches, red on others. When a fertile bull is running with healthy cows on the range, or in pasture, management is much less important in determining high conception results than when artificial insemination is practiced. With AI, the man or men between the collection of the semen and the insemination of the cow become all-important.

Some Advantages

In addition to artificial insemination being a tool for increasing the pounds of quality beef more rapidly than by natural breeding, there are other advantages. A few of the main ones are:

1. Assurance that every service has placed fertile sperm in the cow.
2. Better control of some reproductive diseases such as Vibriosis and Trichomoniasis.
3. Calf crops, feedlot performance and carcass desirability should be more uniform — depending on the use of really outstanding bulls. We have many good cattle, but we need many more of them taking the place of the "poor doers and yielders."
4. Selective matings are made easily; all one has to do is to have the ampules available and then use the one he wants. It's handier to bring together desirable gene combinations from different lines or breeds. Hybrid vigor is going to be increasingly used in the years ahead; after all, if it works with hogs, sheep, poultry and crops, why shouldn't it be an asset to the commercial beef producer and feeder?

When the words "artificial insemination" or "hybrid vigor" are mentioned, many purebred breeders develop an elevated blood pressure. Yet, study of their own programs often shows that they are using AI for their herd improvement or to help their management program. Often, too, they are already using wide outcrosses in the breed and thereby benefiting from hybrid vigor.

Actually, there is little to fear on the part of the really constructive breeders. True, more poor bulls will have to be steered, but the really good bulls will bring more money. Moreover, maximum benefits from hybrid vigor cannot be had unless outstanding sires are used and the breeds maintain their genetic differences and integrity. In many ways, the challenge to the purebred breeder to make the good better will be greater than ever.

Breeding the country's commercial beef cattle artificially isn't a bed of roses, though. Most dairy cows are handled at least twice a day, confined to limited areas or acres and easily restrained when need be. But on beef farms and ranches, cattle numbers range from a few head to thousands; acreages often are extensive, and animals aren't handled often. So, from a management angle, it may be difficult, if not impractical, to practice artificial insemination on some places. There are problems:

1. Because the man in management becomes so important, as does timing, one of the major jobs is the training of the producer. From a practical standpoint, the herd must be managed so that during the breeding season every cow can be seen at least once and preferably twice daily. Heat periods have to be detected, animals confined with a minimum of excitement and rough handling, and inseminations done in mid-to-late heat when possible.
2. Detecting heat in all beef cows is no simple problem. For this reason, "teaser" steers, vasectomized bulls (uncastrated but incapable of reproducing), marking harnesses, and dye marking pads have been and are being used.

The average cow is in heat about 18 hours, but much variation makes up that average. Some are in heat eight hours or less, some for more than twenty-four hours. The bull doesn't miss many heats, but a careless observer can overlook too many of them and, even if detected, one may still not know whether heat is beginning or ending.

3. Most commercial beef cattle haven't had a rope on them or been in a working chute at any time except when a needle or something unpleasant has happened to them; this doesn't make the job any easier. A pen and working chute conveniently located is a practical necessity for ease of handling. Some practical way of placing them in the catch pen is helpful.
4. Semen must be handled properly; insemination techniques must be good; equipment should be sanitary.

Where Does It Fit?

Any size commercial beef herd can use artificial insemination in whole or in part. The really important considerations are the people involved — how capable they are and how much they want to make AI work for them, as well as the ability to confine the breeding herd so that heat detection and restraint can be performed daily.

Smaller herds on relatively few acres, such as one finds in the Northeast, could be bred more easily than in some other areas. At the same time, it is practical in some of the very largest herds to use AI on at least a sizable proportion of the best cows. Herd bulls, to improve the calves from the remaining cows, might be chosen from these AI selective matings. So, it fits with the person who wants to do it, if he will first prepare himself and his facilities.

What's Ahead?

There are several things I see that could have a marked influence on the increase of artificial insemination with commercial beef cattle. Some are nearly here, while others probably are many years away.

The consumer is demanding and will increasingly ask for a more uniform product, one with the most satisfaction and the least waste. Low-cost production and distribution will be important because beef is in competition for

(Continued on page 22)



Unconnmere 4974 was heavier at one year of age than any beef bull ever raised at the University of Connecticut. His semen is available through the New England Selective Breeding Association.

*Department of Animal Industries, University of Connecticut, Storrs, Connecticut

time-saver!

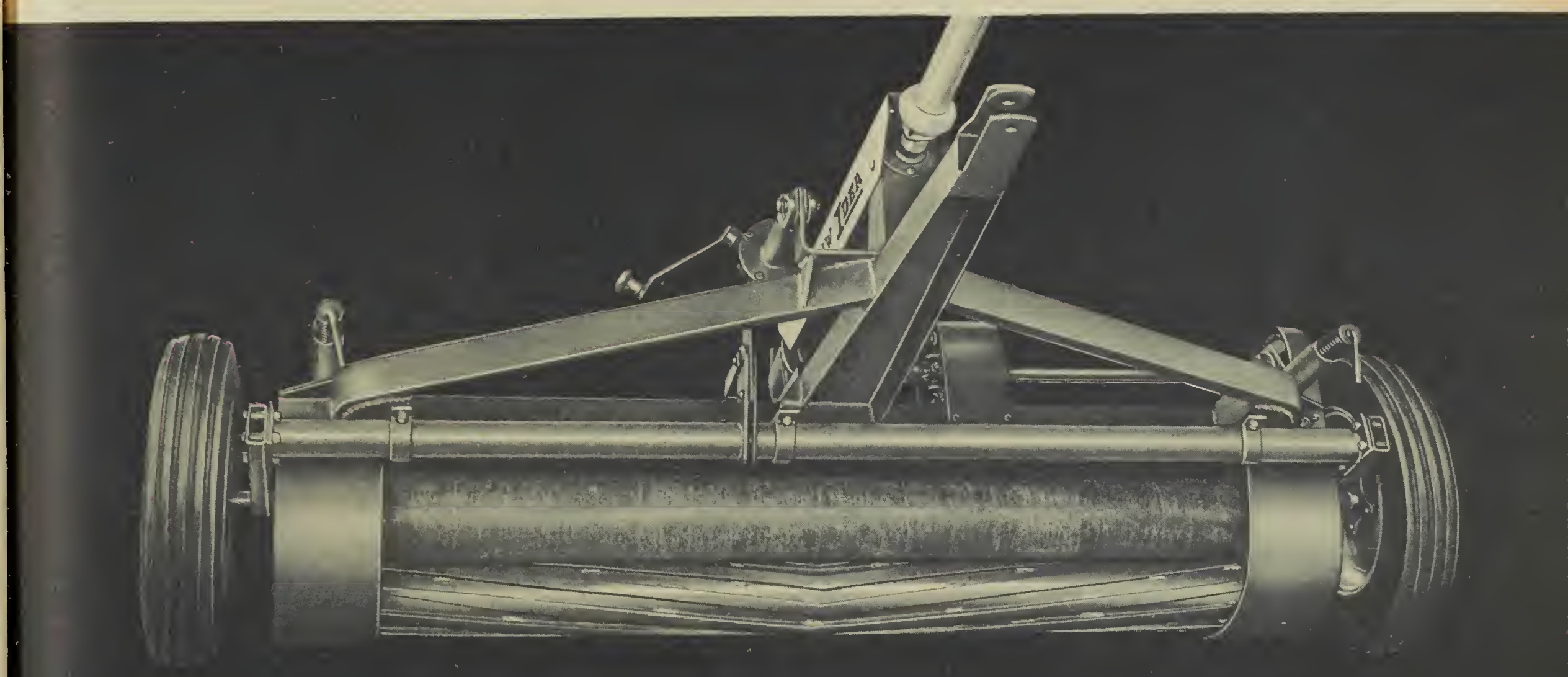
Exclusive tapered flutes give plug-free performance . . . save you time, trouble in the field. Speeds up hay drying by a day or more.

This is the big idea in hay conditioners: a lower steel roll with tapered flutes in a herringbone pattern . . . an upper roll of alligator-tough new rayon cord and new live rubber. Together they just about end plugging, wrapping problems.

But you'll save more than time in the field because this same combination gives you superior conditioning, too. Hay feeds through fast, but gently. No broken match-stick stems; leaf loss is cut way down. Hay is thoroughly fluffed for faster curing. All this plus rugged engineering, quiet operation is yours right now at your New Idea dealer's. Stop in and get the full story. New Idea, Coldwater, Ohio.



where bold new ideas pay off for profit-minded farmers



PRODUCTS OF **Avco** CORPORATION

Save more time, and fuel, too, with full trailing mower in tandem with conditioner. Ruggedly built mower hums through thickest stands without noisy clatter. Cuts square corners easily, trails perfectly. (Use with or without conditioner. Choice of mechanical or hydraulic lift.)

Exclusive Belt-Driven Rake. Constant, smooth reel speed that you get only with a belt drive assures unusually clean raking, minimum leaf shattering. Change reel speed easily. Choice of 4 or 5-bars. Priced right!





(Continued from page 16)

ment coupling to the tractor shaft.

5. The tractor power shaft is one inch shorter for the 1,000 rpm horizontal distance between the drawbar hitch pin hole and the rearmost point of the tires is one inch less for the 1,000 rpm arrangement. These new dimensions, along with the other changes, permit better shielding for improved operator safety. At the same time, the shielding interferes less with hitch-mounted, pto-driven tools.

PTO "Mixtures"

Whenever you purchase either a new tractor or a new pto-driven machine, it will probably be equipped for 1,000-rpm operation. The question then arises of how to "live with" the mixture of pto speeds.

You have a choice of several courses of action, depending upon your individual situation. In some cases, kits are available to convert existing implements to 1,000-rpm operation for use with a new tractor. This is a promising solution if you have only a limited number of 540-rpm implements.

If you want to use 1,000-rpm implements with an existing 540-rpm tractor, it may be possible to change over the tractor to the new standard. Here again, it depends upon how many 540-rpm implements are involved.

Practical Solution

For the majority of farmers, the most practical solution seems to be an external gearbox, mounted on the rear of the tractor main case. This gearcase reduces the speed of a 1,000-rpm tractor to 540-rpm, as well as providing a six-tooth-spline power outlet. Thus, your new tractor could be used with existing implements by use of the gearbox, and with new implements without use of the gearbox.

In the case of implements with high power requirements, it will be necessary to use a heavy-duty gearbox capable of transmitting the high torque that will be produced.

This gearbox arrangement nullifies some of the advantages of the 1,000-rpm standard, and should be considered only as a means of using existing implements with 1,000-rpm tractors until such time as the implements are replaced. A combination of the 1,000-rpm pto on the tractor, and on the implement as well, is required to obtain the full benefits.

Opposite Conversion

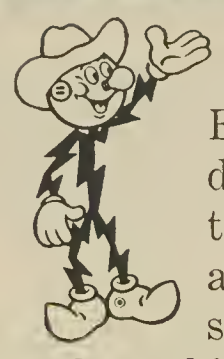
To use a 540-rpm tractor with 1,000-rpm implements, a gearbox can provide the opposite conversion. Thus, you would use a 540 tractor with 540 implements just as you do now, but for use with a 1,000-rpm implement, the external gearbox would be required.

Some current-model tractors include a built-in provision for both pto speeds. In some cases, to change from one speed to the other a stub shaft must be changed or reinstalled to provide the correct shaft.

An alternative solution used by some manufacturers provides two pto shafts on the rear of the tractor — a six-tooth spine which rotates at 540-rpm and a twenty-one tooth spline with a 1,000-rpm speed. Because of the permissible range of vertical distance between the drawbar hitch point and the tractor pto shaft, both the pto shafts can be within the required dimensions.



Rent extra hours of daylight for as low as $3.95 a month!



Extra working hours during your busy times . . . protection against prowlers . . . safety in driveways and working areas . . . these are some of the advantages you get from a Niagara Mohawk mercury vapor outdoor light. It's like having your own private street light.

These outdoor lights turn themselves on at dusk . . . off at dawn *automatically*. Call your Niagara Mohawk farm representative for full details. Or, if you prefer to buy your own light, see your Adequate Wiring Bureau contractor.

• **Rental fee includes** installation on an existing wood utility pole, with existing secondary service, lamp replacement, maintenance and electric power. Monthly rate depends on size of lamp: 175-watt—$3.95; 400-watt—$6.90; 1000-watt—$12.50 per month. New poles can be set and wired for a small additional monthly charge.

NIAGARA MOHAWK

INVESTOR OWNED–TAXPAYING

Here's the latest on AI ...

(Continued from page 20)

the consumers' dollar with every other meat, as well as other foods. Uniformity of top performance — on the farm and feedlot, in the packing plant, and on the platter — is a demand heard today throughout the industry.

Since heat detection and time of breeding are problems under today's conditions, anything will help which makes this job easier. Although still in the research and field trial stages, it does appear that coming close to reality is a method to control and regulate the heat periods of cows so that most of the cows in a herd can be brought into heat at about the same time. This will move artificial insemination with beef cattle ahead by at least a few giant steps if it can be done at low cost.

Sex Determination

Another very much more distant possibility is the development of sex determination. The goal is to be able to inseminate cows with semen from a bull and predict bull calves in at least 80 percent of those calvings and, conversely, to be able to do the same in predicting heifer calves. Some foresee this development in five to ten years, but I think it may take longer.

Frozen semen is now available to commercial beef producers in many areas from some very good beef bulls; more of it is going to be available. If you are in the commercial beef business, you will want to weigh the pros and cons in relation to **your own** available cattle, space, facilities, labor and desires.

The paternal genes going into the nation's beef calf crop will, to an increasing extent, spend some time in a test tube between the sire and the mating. Technological and management advances will determine how rapidly the increase will occur.

American Agriculturist, April, 1964

FREE STALL HOUSING

by Les Rollins, County Agent, Dutchess County

YOU AND I know of many dairy farmers who believe that free stall housing is the long-awaited answer to their dairy cattle handling problems — and I'm sure this is so in many cases. However, even though I have helped plan all kinds of dairy housing in recent years, I just cannot convince myself that free stall housing is — or should be — the best method for housing and handling dairy cattle. Thank goodness, though, for the improvement free stalls have made over some of our loose housing arrangements.



Les Rollins

What with all the recent articles on the affirmative side of free stalls, I think it's time for a rebuttal to stimulate some thinking.

Construction Costs

First of all, is free stall housing really economical to build? Costs throughout the country for complete housing installations of this type range from $400 to $650 per cow. For free stall housing alone, a Cornell study lists costs from $247 to $400 per cow. Costs per cow for materials when converting loose housing to free stalls will vary between $10 — $30 per cow just for the necessary concrete and partitions.

Much research and study has shown that loose housing — when it's built right — is more expensive than a stanchion barn. Sure, this statement doesn't sound realistic, but remember the cost of a milking parlor in such an arrangement. As we discuss housing arrangements, we must also include milking methods, because many of the construction decisions are centered around milking methods that a farmer wants to use — such as milking parlors with loose housing.

Many of our innovators have found that free stalls are colder than loose housing because of the lack of heat created by the built-up manure pack found in a good loose housing operation. Because of this situation, some engineers are recommending — and farmers are constructing — free stall buildings with insulation and fans such as are found in well-ventilated stanchion barns. Up go the costs again!

Labor Efficiency

I'm sure we all agree that the extra capital investment for housing is well worth the expense if our farm people can realize a saving in labor, machinery and time, in other words, increased efficiency — but are they?

In this neck of the woods, farmers have not made large gains in numbers of cows per man because of the change-over in types of housing arrangements. Rapid gains certainly have been made in tons of roughage per acre and pounds of milk per cow, but a man must attach four teat cups to a cow twice a day, and there is a limit on how many he can do if he does other things connected with farming. This man's opinion is that we will not increase cows per man to any great extent for some time.

Manure Handling

Manure removal in free stall housing is said to be an easy and time-saving process; in fact, this is supposedly one of the advantages. But is it a possibility that it would be cheaper and easier to leave the big tractor in the shed and clean the stable with the gutter cleaner by pushing a button?

After a dairyman jumps on and off a tractor a number of times changing the blade, opening gates, plus many other chores, do you suppose some might feel that this method of cleaning might be a little over-rated? A recent Cornell study shows that an average of 60 minutes is required each day for cleaning a free stall building — the stalls by hand and the alleys with equipment.

Let's Suppose

At this point, let's make an assumption. Let's assume that our cattle housing cycle was in reverse, that loose housing and free stalls had come before our stanchion barns, transfer systems and the like. Actually, I suppose if any of us can think back far enough, this might actually have been the case.

However, someone looking at the best possible free stall housing arrangement might have a brilliant idea and say, "Why not tie these cows in their stalls, build a gutter so that manure removal can be done electrically? This innovation would leave a dry walk behind the cows that would be cleaner and more enjoyable to work with."

More Ideas

He might go on, "As long as the cows are tied up we might just as well milk them in place to save time transferring cows and cleaning alleys. An alley could also be constructed in front of the cows so that they may be fed in the stall as

(Continued on page 27)

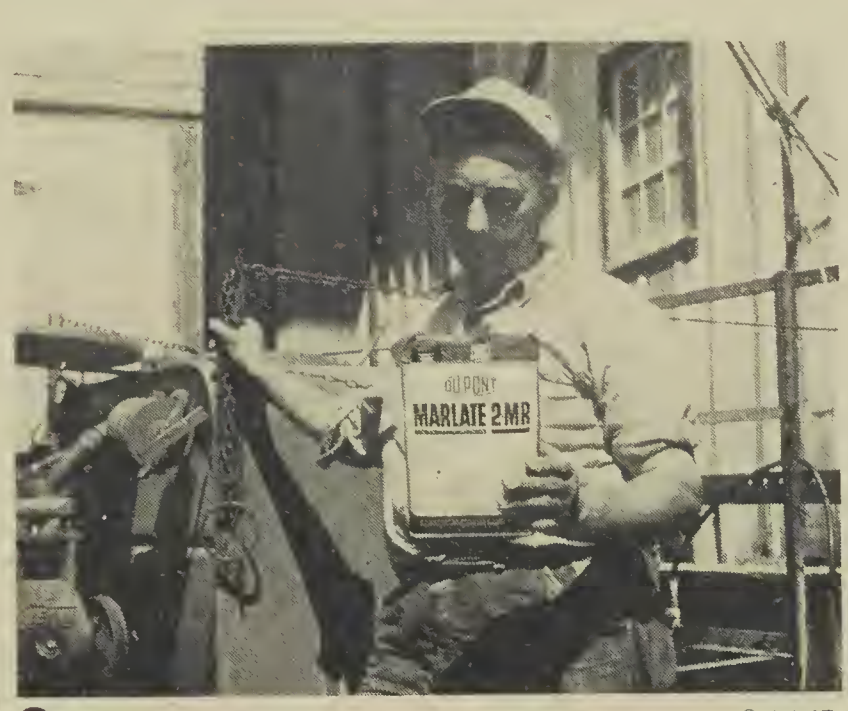
4 ideas from Du Pont to help Northeast dairymen make more milk at lower cost



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3 Get more alfalfa and clover. Spray Du Pont Marlate® 2-MR methoxychlor insecticide to stop weevils from turning a lush field of alfalfa or clover into a "scorched earth." You'll cut better quality hay that's higher in protein and Vitamin A content. When used as recommended, it does not cause residues in milk. Methoxychlor also controls leafhopper, spittlebug, alfalfa caterpillar, armyworm, clover leaf weevil, flea beetle. This year, play it safe with "Marlate."



4 Keep hornflies from biting your cows and milk checks, too. Simply hand dust with Du Pont "Marlate" 50 methoxychlor insecticide, just as it comes from the bag. A rounded tablespoonful rubbed in along the neck and back does the job for as long as 3 weeks. Hornfly control with methoxychlor is easy, fast and effective; and when it's used as directed, leaves no residue in milk. Keep hornflies from pestering your herd in the barn and on pasture. Rub in protection, fast, with Du Pont "Marlate."

Any one of these ideas will save you money and help you increase milk production. Why not use all four and make the maximum of profit? See your dealer or for more information write Du Pont, I. & B. Dept., Wilmington, Delaware 19898.

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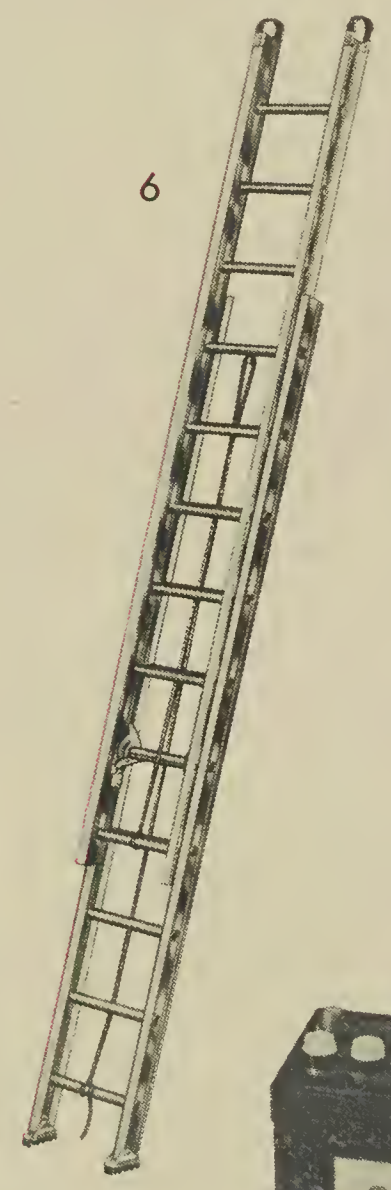

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4 HUSKY WRENCH SET Model 8214
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All nylon webbing. Fits all models. Easily installed. 6000 lbs. test strength. Safe metal-to-metal buckle.
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8 GLF 12-VOLT BATTERY
Dry charge. Heavy duty. Three year guarantee. Gives extra surge of power for quick starting. Fits many tractors, late model Chevrolets, Plymouths, Pontiacs, Ramblers, Dodges, Chryslers, and others.
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Raises eight ton loads. For heavy truck use. Lifts to a height of almost 20". Hydraulic action.
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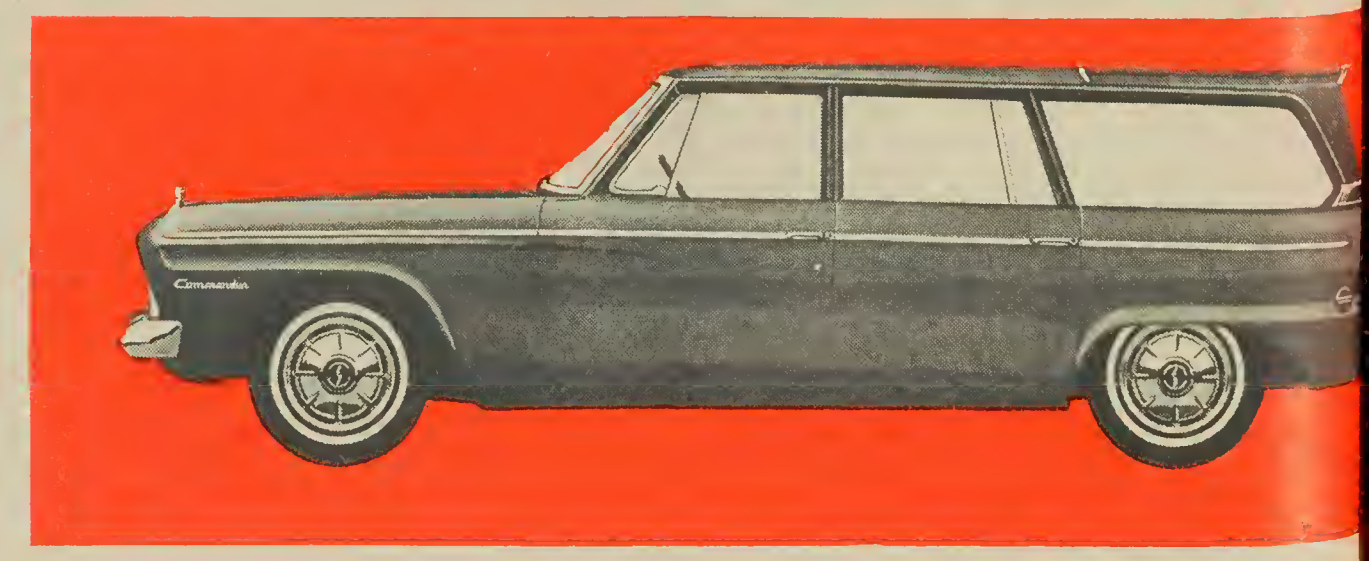
LUCKY LUCKY LUCKY YOU ...

THREE TO BE AWARDED!

Nothing to buy, no jingles to write—just come in and register during our SHOWER OF VALUES sale, April 8 thru 25. Three lucky, lucky, lucky winners will each win a 1964 Studebaker 4-door Commander Wagonaire Station Wagon equipped with white sidewalls, Thunderbolt V-8 Engine, standard transmission, heater, undercoating and slide-away roof. It's the world's only wagon convertible, with slide-open steel roof. Smart looking, practical—a jolly, fun-packed vehicle for the whole family.

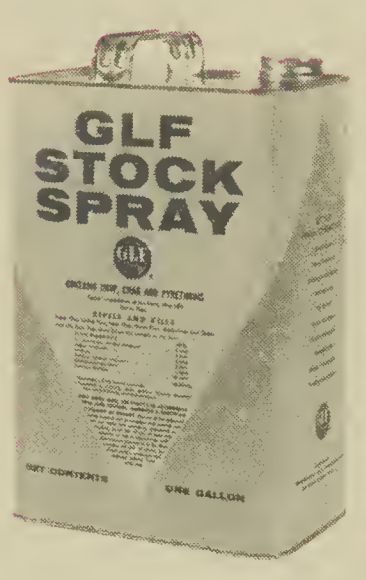
GET FULL DETAILS AND REGISTRATION RULES FOR THE WAGONAIRE DRAWING AT YOUR GLF SERVICE AGENCY.

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See many Super Sale items in the GLF Shower of Values flye

THE SHOWER OF VALUES



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10 PERFECTION STALLCOCK

Automatic. Replace old hand operated stallcocks. Threaded style, use in any ½" N.P.T. fitting or tapping.

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For faster knockdown on horse flies, stable flies, horn flies, house flies, mosquitoes and gnats. Kills face flies on contact. Spray-on protection for dairy and beef cattle; space spray in barn and milk room. Big 2-gallon can.

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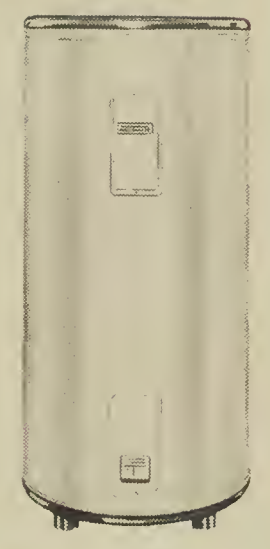
For fence controller, boating, camping, lighting or ignition. Sure power. Long lasting. Size 10 13/32" long, 2 25/32" wide, 7 9/32" high.

Reg. $4.25 **April 8 thru April 25 only** **$3.85**

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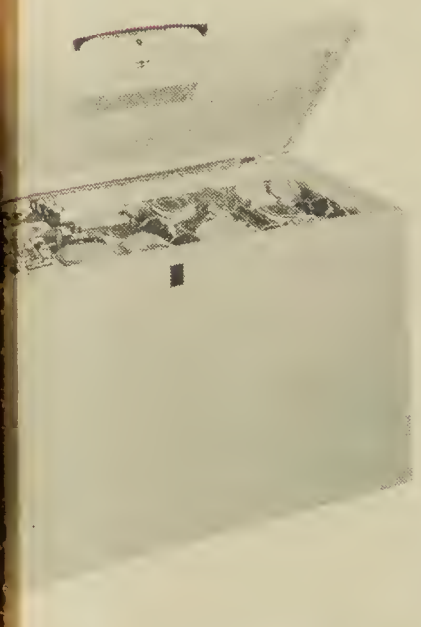


12



14

HOME



13 CHEST FREEZER

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Electric. Have plenty of hot water when you need it. Extra thick insulation retains heat. Glass lined corrosion free porcelain with baked-on enamel. Cap. 52 gal. U.L. approved. Ten year warranty.

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Two drawer. Ideal where storage space is needed for valuable records. Heavy gauge furniture steel. Cam-lock locks both drawers. 30" high, 15 3/8" wide.

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16 The SENTRY STANDARD SAFE

Marked way below the usual price. Low-cost protection against fire and theft. Prime steel, heavy all welded construction. Built-in combination lock. Weighs 240 lbs. U.L. approved.

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17 REMINGTON ADDING MACHINE

Portable. 10-key. The new Remington Model 8 is the first electric portable adding machine at such a low price. Weighs just 9 lbs. Prints on tape for permanent records.

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Look for the **Rainbow Special** symbol on the extra big values at your GLF Service Agency during the Shower of Values . . . April 8 to 25.

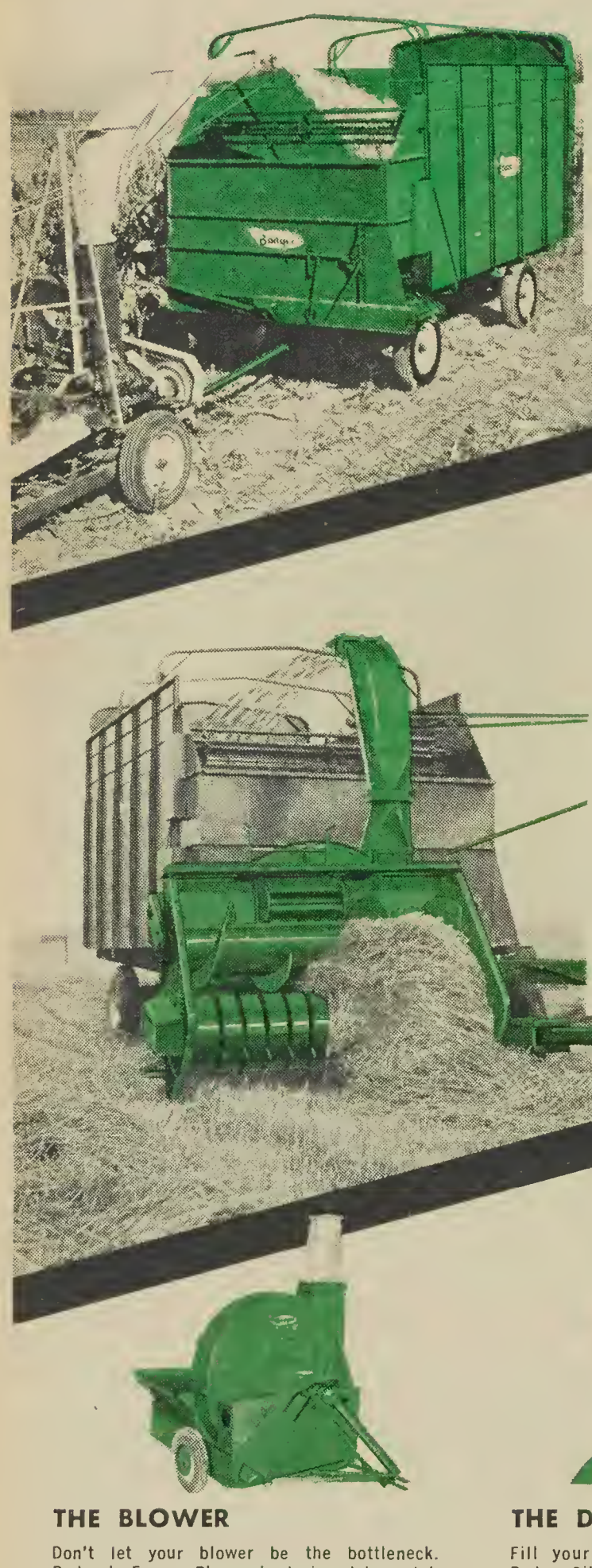
RAINBOW SPECIAL

GLF Quality

Cooperative GLF Exchange, Inc.
Ithaca, New York

It'll be in the mailbox soon, or get one at your local GLF.

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THE BOX

It's big, rugged, and fast unloading . . . a perfect example of Badger's renowned, practical engineering. Underneath you'll find a high fatigue steel channel frame developed just for the unbelievable loads and stresses a forage box is subjected to. Up front there's a unique single lever control with 4 unloading speeds. Inside it's a big seven feet, three inches wide. You can order it in 16 and 18 foot lengths with 2 or 3 beaters. This year, bring in bigger loads and unload them faster . . . with a Badger.

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If you want more tonnage per hour — with whatever tractor you put on it—you just can't beat a Badger Forage Harvester. Pintle-chain feed apron and caterpillar-type top feed apron keep material moving. Slant mounted knives give greater throat capacity. Heavy flywheel and 6 blower paddles blow chopped material into the longest box.

And a word about cutting edges—the Badger Harvester has 6 chrome-edged knives plus a reversible tungsten carbide cutting bar that assures an unsurpassed cutting edge.

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Don't let your blower be the bottleneck. Badger's Forage Blower is designed to match your growing need for a blower which takes more material faster. How? Badger does it with a larger receiving hopper . . . lower entry into the blower . . . 6 full-length adjustable paddles. One other feature you'll like is the one-piece rotating housing.

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Fill your silo evenly—**automatically.** The Badger Silage Distributor is controlled entirely from the ground . . . fits any silo . . . needs only an 18 inch silo opening . . . takes only a ¼ horse motor. This year, have the advantages of even filling, better compaction, uniform feeding quality, less spoilage with a Badger Silage Distributor.

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Gayway Farm Notes

by HAROLD HAWLEY

VANISHING AMERICAN

You have once again demonstrated what wonderful people you are. When I mentioned our difficulty in finding an Airedale pup many, many of you wrote to tell us of a source. We followed up one of the first letters — from friend Paul Christner at Pavillion, New York, and bought a pup from his neighbor, Charles Elwell.

We are equally grateful to the rest of you even though we couldn't use your information at the moment. One of you did not receive a reply because your letter and envelope became separated and I didn't know the address. Pardon it, please, Mrs. Donald Wright.

The fine thing about all this, in addition to the wonderful way so many of you responded to help us, was to find out that there are still quite a few breeders of this fine dog. Several of your letters were eloquent testimony to the high regard you, too, have for these big terriers.

It has been so long since we had a pup around that we had almost forgotten the foolish, wonderful enthusiasm of a young dog or the way of a child and a pup together. The unhesitating way Eilene (our ten-year-old) and that pup went for each other, and their joyous reunions each afternoon after school, took us back to the time when our boys and their first Airedale pup were growing up together.

What a shame in some respects that we ever grow up! Only the young (or the young in heart) seem to have this ability to love spontaneously and without reserve, to rejoice and enthuse all over again at each meeting, and to find something new and wonderful in each new experience.

REST THEM OR MILK THEM?

Just about the time there is general agreement on something, along comes somebody to stir things up again! A poll of dairymen would probably show that most favored a six to eight-week dry period for their cows. This, coupled with better feeding than formerly while the cows are dry, seems to be the accepted program. So now we are asked — "Why dry them off at all?"

The thinking goes like this: when we used to feed so poorly that we milked the flesh off a cow, it took a dry period to get her back in flesh so there was something to draw against next lactation. Now that cows are fed better, just possibly that isn't necessary — nor the road to most profit.

Of course, to do away with a dry period might prevent the cow from "peaking" so high in milk production next time, and it might also result in less congestion and injury to the udder at and following freshening. The only real point in such a change would be if it increased net income. I'm not at all sure whether it would, but the idea intrigues me.

Certainly it would relieve us of one of the problems we now have — how to get the good ones dry. Of course, the poor ones would continue to dry off easily enough and might thereby cull themselves if it was found that continuous milking was practical and profitable. Even to cut the dry period to three or four weeks might be a start. It would be interesting to hear from someone who has tried this. My address, by the way, is Weedsport, New York.

THE ELECTRONIC AGE

The most important and most welcome piece of electronic equipment, when they get it, will be a "scanner" with enough brains to sort and mark the ever-increasing mass of mail that comes to the farm homes of this great land. It's my off-hand guess that more farm women get exasperated with their men over the accumulation of mail and magazines not yet finished than over all the other masculine faults combined! It's a never-ending job to read all this material — but how else can we keep up?

The next tension comes over the saving and filing. It's a little tough to decide what should be saved. A batting average of 10 percent right choice is beyond my wildest hope. Unless the good wife files it herself, chances are it can't be found again anyway. Of course, this puts her in the driver's seat because no one else understands her "system."

Various friends have different arrangements for storing, different responsibilities relative to throwing it away or filing it, etc., but all admit that their system isn't so hot. So comes (hopefully) the day of the electronic scanner. It reads and evaluates everything, saves and summarizes what you need to read and know, and stores it for later use (ever so neatly, too).

When this miracle gadget arrives, farmers can approach their castle without fear or fore-

boding, knowing full well that their ever-lovin' isn't going to inquire for the tenth time if this material can't be thrown away — and has that stuff been read? Everything will then be under control in this department, and all will be peace and quiet in the old homestead. (Kinda dull, too!)

LIGHT NEEDED

At any given time there is a pretty well-established market and market price for wheat, corn, etc. Prices are listed on the board and in the paper; the radio carries the market report. A farmer can know about what his grain is worth even if he hasn't been to market with any. This market reporting service is a real protection to all of us.

Most years there are many hay and straw buyers and many transactions. The price is thus established and the knowledge is widespread — this is as it should be. So far this year, however, there have been almost no buyers locally. Sales prices for hay and straw are not reported. This makes the farmer who wants to sell an easy victim. He neither knows the going price nor the supply over the area.

No dealer is about to go on the road without this information, so the farmer is in a pretty poor bargaining position when he is, in fact, ignorant of the conditions in the market. Producers of many commodities have a similar problem. An important contribution of the Farm Bureau Apple Marketing Co-op has been the collecting, analyzing, and disseminating of information on crop conditions, carry-over, as well as offers and prices as they are made.

It's my contention that farmers with hay and straw for sale would do a lot better job of selling if they had such information. What has your experience been when you sold to a cattle buyer if you weren't pretty well posted on the market prices? It's no different selling hay or anything else; singly and uninformed we get taken. Any suggestions?

DEDICATION PERSONIFIED

Some 12,000 school administrators, principals, and school board members were in Atlantic City in mid-February for the annual meeting of school administrators. Being a member of our local school board, I was privileged to be among them.

As parents and citizens we should all be grateful for the accomplishments and efforts of these people — and the thousands of teachers "back home" with whom they work. It stirs me a little to think what education has done for our society — in every field and in almost every way.

To see these people shaping plans and dreaming dreams of levels of educational achievement not yet possible, to become more keenly aware of the advance in teaching techniques, and the hope of better curriculum offerings — well, sir, I found it pretty exciting! To a degree beyond my comprehension, we are moving forward in the area of most promise for mankind. Actually, I suppose education brings tolerance and does more to bring about the brotherhood of man than all the integration laws, treaties, and agreements ever can.

Dates to Remember

March 30-April 2 — Maine Farm Week, University of Maine, Orono.

April 2 — Annual Meeting New York State Guernsey Breeders' Cooperative, Inc.

April 2-3 — Northeast Dairy Conference, Allentown, Pa.

April 5-7 — National Institute of Animal Agriculture, Purdue University, Lafayette, Indiana

April 18 — State Hereford Sale. Ithaca, N.Y.

April 22 — World's Fair Opening, New York City.

April 25 — Little International Livestock Show, Cornell University, Ithaca, N.Y.

free stall housing

(Continued from page 23)

well as any outside automatic system. In fact, with a flat manger in front, a dairyman would have the privilege of driving a self-propelled, side-unloading silage cart quickly from a bank of silos to a string of milking cows."

You guessed it — we're right back to a stanchion barn, but not necessarily to the high two-row barns that have been built for decades. Let's think of a new and modern four-row stanchion barn housing 120 milkers as we might see on Roger Becker's farm near Cobleskill, New York. Here is a fine structure that was built for less than half the cost of some of our free stall installations, and the Beckers are handling more cows per man than most dairymen.

What's Coming?

In years to come we are going to be milking many more cows per farm. Are they going to be milked by the owner? Is it easier to keep a good hired man happy in a parlor, milking large herds, than it is in other ways? Are free stalls clean enough? Will sanitary codes and need for good public relations place future restrictions on some of our present methods of handling cows?

Many of our farm friends defend the loose housing arrangements of yesteryear and the free stall housing of today. My question is, "With what are they comparing their arrangement?" In most cases, a new arrangement, regardless of the type, would be a big improvement over the old — and worth defending.

Are we losing sight of some of our other methods of housing dairy cattle? Would a stanchion barn full of milking cows, with a pole barn covering an automatic feeding bunk for dry cows and heifers, be the most economical and efficient? I'm still not convinced that free stalls are the answer for everyone planning new dairy housing.



HUME PICK-UP REELS

Here's why more users prefer Hume

It has stronger, full-curved pick-up tines locked into sturdy hardwood bats. A stronger center shaft . . . improved truss rods with S.A.E. threads and cushioned-in-rubber for the toughest field performance.

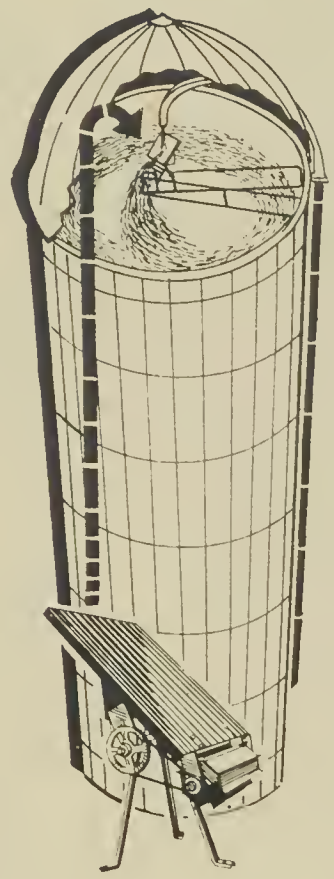
EQUALOAD Polygons, on both ends of the reel, tie all bats together, distributing heavy crop stress evenly over entire reel frame.

Rugged steel Eccentric Drive with simple tine pitch adjustment — doesn't get out of adjustment.

Hume Reels are designed with E-Z Turn, long-life bearing points. Fewer grease fittings mean less wear caused by the abrasive combination of dirt and grease.

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EVEN-FLO

Offers You These Silage Distribution Features.

- A center-fill distributor.
- No motor or extra power needed.
- Distribution pattern that assures "Homogenized" silage.

Even-Flo breaks up direct blower pipe blast, eliminates separation of particles before fermentation. Even-Flo filled silage is "homogenized," highly palatable.

Even-Flo's rotary center filling means tight pack to exclude air and cuts down fermentation and oxidation losses to a minimum.

Even-Flo's distribution pattern, tight pack, enables you to get up to 20% more silage in the same size silo.

Even-Flo fills from center of silo. No motor is needed, silage passing over paddle wheel operates unit. Simple, fool-proof. Installs easily with unloader.

Even-Flo fills all grass silage, low moisture grass silage, corn silage, shelled or crushed corn.

Even-Flo is a proven product, thousands in use.

Write or see your silo company or dealer. Dealerships available in some areas.

WANT EFFICIENT GRAIN DISTRIBUTION?

Even-Flo offers two distributors to do the job. The Syncro-Rotor, the big rugged powered model for the big job, fills any size bin, eliminates grain centering. The Economy model, self-powered, does a big job for a modest price.

☐ Please send me information about Even-Flo "Homogenized" Silage. A4
☐ Please send me information about Even-Flo Grain Distributors.

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Street or RFD_____
Town_____ State_____

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321 S. THIRD ST., LAFAYETTE, INDIANA

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Super-Six Champ with manure fork and material plate

Super-Six fits more tractors than any other loader—more than 250 makes and models. Chances are, one of those is yours! Super-Six loaders handle manure, corn, grain, snow and other materials in a fraction of the time it takes by hand. Depending on the model, Super-Six lifts from 1500 to 3000 lbs. up to 11 feet. All operate off tractor hydraulic system. Add a Super-Six Loader and make your tractor work as much for you in yard, barns and feedlots as it does in the field.

- **Fits utility, row-crop and adjustable wide-front tractors**
- **Complete line of attachments for loading, dozing, hauling**

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Please send literature on loader.

I am a student, send special material ☐

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4% *a year*

FULL RATE...NO WAIT

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FERTILIZING FARM FORAGES

by John Baylor*

YOU'VE PROBABLY often heard the statement "Well-fed forages can make you money." But just how much money? That, of course, depends on a number of things. Has enough lime been used to correct soil acidity? Have you matched the crop to the soil—chosen the species, varieties and mixtures that are best for the particular soil and climatic conditions?

Let's assume you've done all these things, and that a combination of alfalfa and late orchardgrass is the best mixture. What will this field yield? With little or no fertilizer, probably not more than 2-2½ tons of hay per acre. But research and experience prove that with a well-balanced fertilizer and good management, hay yields can be 4½ or more tons per acre!

To convert this to dollars, let's look at a report by Dr. R. E. Blaser of the Virginia Agricultural Experiment Station. In his study the alfalfa-orchardgrass mixture yielding two tons per acre actually showed a loss of $4.22 on each acre. But when fertilized and managed to produce 4½ tons, a net profit of $56 per acre was the result! The cost of producing two tons per acre was $34.11 per ton. With the 4½-ton yield, the per ton cost was only $18.76.

Soil Test

Most dairymen agree that in the Northeast forage crops are the backbone of a sound dairy enterprise. Yet, how many dairymen treat their hay fields with the same respect as corn? In Pennsylvania, for example, there are twice as many soil tests made for corn as for hay fields. Yet our hay acreage is about twice that of corn!

Testing your soil alone won't assure you maximum yields per acre. But soil analyses of samples properly taken can tell you how much lime and fertilizer you should apply. They give you the best information available to bring your fields to a high, balanced-fertility condition.

Taking soil samples of all your forage fields is certainly the place to begin.

Lime First

Fertilizer is the doorway to high forage yields. But **lime is the key that unlocks that fertilizer door.** Lime and fertilizer work side by side; to fertilize without first adding lime often results in a lower return on your fertilizer investment.

Why is lime so important? To begin with, most soils in the humid Northeast are low in lime. Secondly, most of our productive legumes and grasses do best only when there is plenty of lime in the soil.

But there are other important reasons, too. When acid soil is limed, the acidity of the soil is decreased, and the soil pH is raised. When the pH is raised, phosphorus, molybdenum, and certain other essential elements become more available, and the supply of calcium is increased. With adequate lime, toxic levels of certain elements such as aluminum and manganese are reduced so that the amount remaining in the soil solution is no longer toxic.

With enough lime, conditions are more favorable for soil organisms to live and reproduce and for deep rooting by plants. All this means that liming your soils to a pH of somewhere in the range of 6.7 to 7.0 gives better results from the fertilizer you apply!

How Much?

Forages are heavy users of fertilizers. A 5-ton yield of alfalfa, for instance, will contain about 225 pounds of nitrogen, about 50 pounds of phosphate and 225 pounds of potash. Alfalfa and other legumes, when properly inoculated, normally get the greater part of their nitrogen from the air. But it's up to you to supply much of the phosphate and potash needed to keep them healthy and productive.

As indicated earlier, a soil test is your best guide to most profitable fertilization. For many soils, potash is the key nutrient, but on most soils in the Northeast it is not the only fertilizer needed. Without lime and phosphate (and usually

(Continued on next page)

*Extension Agronomist, Pennsylvania State University

Outdoor Feeding

Silo unloaders or horizontal silos, coupled with silage feeding in bunks (either with auger or tube-type fixed feeders or with self-unloading wagons) should be considered as a worthwhile alternative to hand feeding from carts in stall barns. Professor R. G. Light, of the Agricultural Engineering Department at the University of Massachusetts, says that this is particularly true if releasing cows from stalls for milking in a parlor is being contemplated.

Bunks equipped with fixed feeders are usually located close to the silos, and many existing silos and exercise yards can be developed into adequate outside silage feeding systems.

The bunks should run in north-south direction wherever possible so that the sun can get to them to thaw ice, snow and frozen manure.

Minimize shading of the bunk from tower silos, overhanging roofs, or adjacent buildings. The tower silos should be located on the north end of the bunk if a close relationship is made necessary by the feeding system. If this isn't feasible, silos should be at least 20 to 30 feet to the east of the bunk to take advantage of the sun's rays during the warmer hours of the day. This will necessitate a conveyor section for fixed feeding systems. If only one silo is to be used, it could be located directly at the south end of the bunk.

A strip 10 feet wide should be paved (preferably with concrete) immediately adjacent to the bunk on both sides, for manure scraping, safe cattle footing, and passage of self-unloading wagons. The paved strips should be sloped away from the bunk at the rate of one-half inch per foot of width. The entire bunk and strips can be sloped from north to south at the rate of one-quarter inch per foot of length. A natural slope from north to south would be desirable; if this cannot be arranged, then provision must be made to drain surface water around the end of the bunk, or under it, with catch basins or other means.

LENGTH NEEDED

At least 2 1/2 to 3 feet of bunk length should be provided for each animal, depending on average anmal size of the herd. Fence line feeders are usually fed from one side only, and may require more materials to construct, but they do provide easy access for self-unloading wagons outside the lot.

Bunks allowing feeding from both sides should be 5 to 6 feet wide; single side bunks at least 3 feet wide. The sides should be about 28 inches high for full-grown animals, and the feeding floor about 16 inches above the lot. The sides should be solid for at least 8 inches above the lot paving to prevent manure build-up beneath the bunk.

Bunks may be roofed or not, according to preference. Long overhangs shade both bunk and cattle, desirable in summer but preventing thawing in winter. Short roofs, on the other hand, drain water down on the necks of the feeding animals. It is likely that neither roof type will prevent blowing snow from filling the bunk in winter. The eaves should be high enough to allow the passage of self-unloading wagons and to give clearance for the activities of cows in heat.

Fertilizing

boron) potash response can be limited.

When complete soil tests are not used, a good thumb rule for established alfalfa stands is to top-dress them annually with at least 60 to 80 pounds of phosphate and 120 pounds of potash per acre. This could be applied in 600 to 800 pounds of borated 0-10-20 fertilizer per acre. This will apply approximately two pounds of boron per acre in the top-dressing fertilizer.

Timing

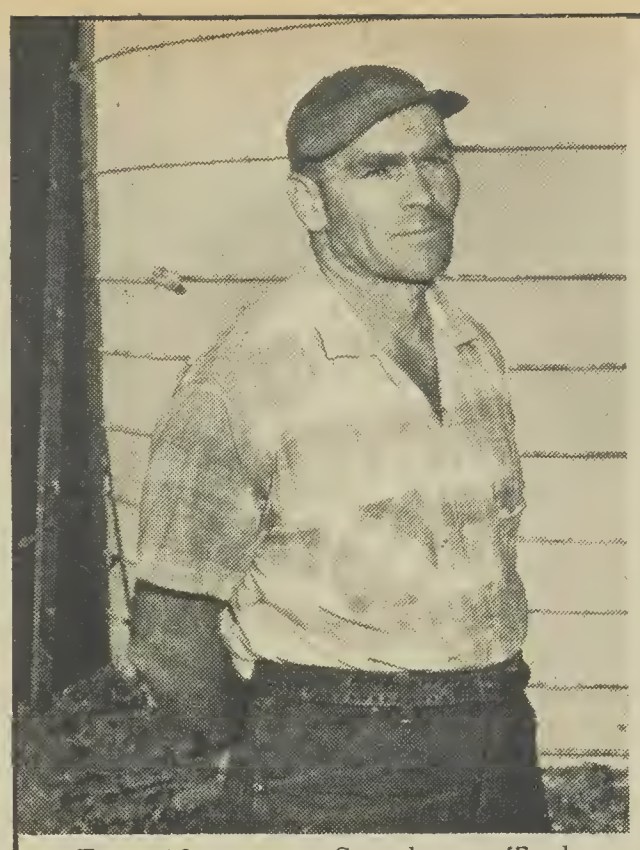
When you fertilize alfalfa is not too critical as long as you do fertilize annually. Many farmers prefer a fall application after the last cutting has been removed; others prefer fertilizing in the early spring or after first cutting. Split applications, in the fall or spring and again after first cutting, are the choice of others.

Splitting the applications will result in more uniform uptake of fertilizer elements (especially potassium) by the plant — and may alter the seasonal production slightly. But most research shows very little difference in total hay production per year, regardless of the time of application, as long as the same total amount of fertilizer is applied.

Grasses Need Nitrogen

Grasses also need lots of plant food to produce high yields. Four tons of timothy hay, for example, remove about 100 pounds of nitrogen, 40 pounds of phosphate and better than 150 pounds of potash. Actually, well-fed and well-managed tall grasses can produce about as much forage per acre as legumes — and similar in quality too!

But for grasses it takes a balanced complete fertilizer to do the job. A good program to follow — if the field has not been tested to provide more precise recommendations — is to apply about 50 pounds of nitrogen, 100 pounds of phosphate and 100 pounds of potash per acre in early spring. This can be supplied, for example, by 1,000 pounds of a 5-10-10, or 650 pounds of 8-16-16 fertilizer per acre. Be sure to follow with an application of nitrogen (50 pounds per acre) after first harvest.



For 19 years Sterling Tucker, operator of a 300-acre farm at Painted Post, N.Y., has been a member of Addison Milk Producers Co-op. He is now a director of his local co-op and a delegate to the Bargaining Agency.

"A TRUE DAIRY FARMERS' ORGANIZATION"

"I believe the Bargaining Agency is truly a dairy farmers' organization; it is run by dairymen who are elected by dairymen. That's one reason I believe that throughout the years, the Bargaining Agency's platform has benefited the whole dairy industry — dairymen, consumers and dealers — and why membership in the Agency assures a dairyman of leadership, education and milk marketing progress," says Sterling Tucker of Painted Post, N.Y.

If you're interested in an active organization of dairymen, join a cooperative which is a part of

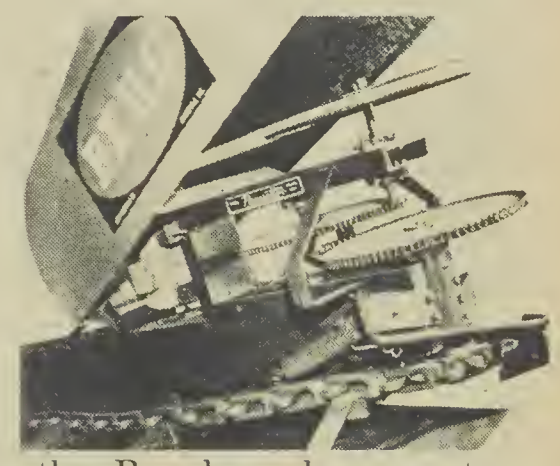
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PRIZES FOR COFFEE



From MONARCH RANGE COMPANY

To one of the top State Winners: "Modernique" Electric Range with mirror glass oven door.



Mrs. Augusta Chapman



Mrs. Dorothy Scofield

Co-directors of the Yeast Coffee Cake Contest are American Agriculturist Home Editor Augusta Chapman and Mrs. Dorothy Scofield, Otego, N. Y., chairman of the State Grange Service and Hospitality Committee.

THE APPROVAL of your family is usually reward enough for baking fragrant, delicious yeast breads, but this year yeast coffee cakes can earn extra dividends for Grange members entering the statewide Coffee Cake Contest that New York State Grange and American Agriculturist are jointly sponsoring. Pictured on these two pages are the prizes that will be awarded the winners in next fall's state finals, held when State Grange meets at Rochester, New York.

Co-directors of the Coffee Cake Contest are Mrs. Dorothy Scofield, Otego, New York, Chairman of the State Grange Service & Hospitality Committee, and Mrs. Augusta Chapman, Home Editor of American Agriculturist. Assisting them are two other members of the State Committee, Mrs. Agnes McHeffey of Heuvelton and Mrs. Lizzie Houck of Dundee, also approximately 1,000 Subordinate and Pomona Grange S. & H. chairmen who will have charge of the local and county contests.

Since the contest got under way in January, hundreds of delicious coffee cakes have been entered in the Subordinate Grange elimination contests, and there are many more to be held. Each contestant enters her favorite yeast coffee cake (round, oblong, ring, or braid and filled or plain) in her local Grange competition.

If she wins there, she enters the county contest — and that's where the excitement really begins! The county winner goes on to the state finals where she may win a lot of valuable prizes. Grange men are in on this too, for all Subordinate Grangers are eligible to take part, except professional bakers.

The following American Agriculturist advertisers are cooperating in the contest: Cooperative G.L.F. Exchange, Inc.; Monarch Range Co.; Penick & Ford, Ltd., Inc.; and Standard Brands, Inc. All of these companies are giving prizes to the top winners in the finals next fall, and two of them are also giving prizes for the Pomona contests.

Here is how the prizes shown on these pages will be distributed to state coffee cake contest winners next October:

To the 2 top state winners: One of the household equipment prizes pictured. They are:

A fully automatic Unico Portable Dishwasher with vinyl coated racks and easy connection to regular sink faucet from **Cooperative G.L.F. Exchange, Inc.**

Monarch "Modernique" 30-inch Eye Level Oven Range with new mirror glass oven door (see through when light is on, a mirror when light is off) and "Vitrifused" glass lined oven with removable porcelain sides for easy cleaning at sink from **Monarch Range Company.**

To each of the 10 highest state winners: duplicate sets of the grocery prizes shown on these pages, as follows:

From Cooperative G.L.F. Exchange: 5 lb. sack of each of the following G.L.F. flours: Cake, Bread, Quality Pastry, and Buckwheat Pancake Mix, also a 4-lb. sack of First Lady Buttermilk Pancake Mix.

From **Penick & Ford, Ltd., Inc.:** A 24-oz. can Davis Baking Powder; a 12-oz can each of Cocomalt, Creamy White Swel, and Creamy Fudge Swel; Swel recipe folder and Quick-Mix Charts; 1 dozen 12-oz. bottles of Brer Rabbit Molasses and a copy of "Book of Molasses Magic," and a case of MY-T-FINE Lemon Pie Filling.

From **Standard Brands, Inc.:** A handsome wicker basket containing an assortment of Standard Brands products, including Tender Leaf Tea Bags and Instant Tea; Chase & Sanborn Coffee and Instant Coffee; Planters Dry Roasted Peanuts, Mixed Nuts, and Cocktail Peanuts; Royal Instant Puddings and Pie Fillings and Royal Gelatin Desserts, and Fleischmann's Yeast.

Besides these grocery and equipment prizes, state winners will receive the following cash prizes:

$159.00 in Entry Prizes from New York State Grange. Each of the 53 county winners taking part in the finals will receive a $3.00 entry prize.

$107.00 from American Agriculturist, to be distributed among the top 15 state winners: First prize, $25; second, $20; third, $15; fourth, $10; fifth, $8; sixth, $6; seventh, $4; eighth through tenth, $3; and $2 each to the next five high winners.

$50.00 from Standard Brands, Inc., makers of Fleischmann's Yeast, as follows: $25 to the No. 1 state winner, $15 to the No. 2 winner, and $10 to winner No. 3.

Prizes will be awarded also for the 53 Pomona contests by Cooperative G.L.F. Exchange and Penick & Ford, Ltd., Inc. In addition, each local winner in a Subordinate Grange contest will receive a Lucille Brewer cookbook from G.L.F.

Names and pictures of county contest winners will be published in American Agriculturist as fast as we receive them from the Pomona chairmen. Watch for them in coming issues!

From COOPERATIVE G.L.F. EXCHANGE

To one of the top State Winners: Fully automatic Unico Portable Dishwasher.

To each of the 10 high State Winners: 5-lb. sack of each of the following G.L.F. flours: Cake, Bread, Quality Pastry, and Pancake Mix, also 4-lb. sack of First Lady Buttermilk Pancake Mix.

To each of the 53 Pomona contests: 5-lb. sacks of G.L.F. Cake Flour and Pancake Mix.

To each Subordinate winner: Lucille Brewer Cookbook.





CAKES!



From STANDARD BRANDS, INC.

To each of the 10 high State Winners: Wicker basket containing an assortment of Standard Brands products, including Tender Leaf Teas, Chase & Sanborn Coffees, Planters Nuts, Royal Instant Puddings and Gelatin Desserts, and Fleischmann's Yeast.

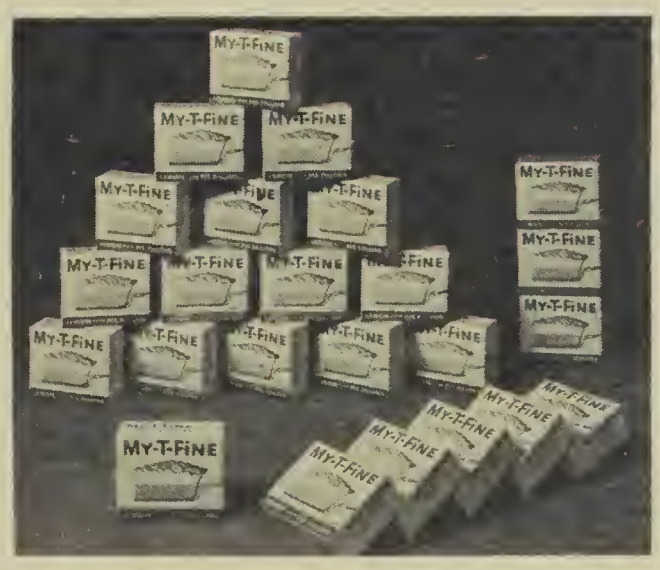
Cash Prizes as follows:

$25.00 to Winner No. 1, $15.00 to Winner No. 2, and $10.00 to Winner No. 3.



From PENICK & FORD, LTD., INC.

To each of the 10 high State winners: 24-oz. can Davis Baking Powder; 12-oz. can each of Cocomalt, Creamy White Swel and Creamy Fudge Swel; Swel recipe folder and Quick-Mix Charts.



Case of MY-T-FINE Lemon Pie filling.



1 doz. 12-oz. bottles Brer Rabbit Molasses and copy of "Book of Molasses Magic."

To each of the 53 Pomona contests: 12-oz. bottle Brer Rabbit Molasses and copy of "Book of Molasses Magic."

Bake a Winning Coffee Ring with Brer Rabbit Molasses

IN THE NEW YORK GRANGE BAKE-OFF

Brer Rabbit will match cash bonuses offered to top 15 state winners by American Agriculturist! Top 10 state winners also get a big box of gifts: Brer Rabbit Molasses • My-T-Fine Lemon Pie Filling • Davis Baking Powder • Cocomalt • Swel Frostings • baking charts and exciting recipe booklets.

Taste what wonderful, spicy flavor Brer Rabbit Real New Orleans Molasses adds to bakings! Try this recipe!



MOLASSES-NUT BUBBLE RING

1 package active dry yeast
¼ cup warm water
½ cup light cream
½ cup sugar
⅓ cup shortening
1 teaspoon salt
3½ to 4 cups flour
2 eggs, beaten
¼ cup melted butter or margarine
½ cup Brer Rabbit Molasses
1 teaspoon cinnamon
¼ cup granulated sugar
1 cup finely chopped walnuts or pecans

Soften yeast in warm water. Scald cream, stir in sugar, shortening and salt. Cool mixture to lukewarm, then beat in 1 cup flour. Stir in eggs and yeast; mix smooth. Add remaining flour to make a soft dough and mix thoroughly. Place in a well greased bowl, turning dough over to grease on all surfaces. Cover and let rise until doubled in bulk, about 2 hours. Punch down and let rest for a few minutes. Cut dough into 24 pieces, then shape each piece into a ball. Dip each ball into mixed melted butter and molasses, then into mixed cinnamon and sugar, then into finely chopped nuts. Place a layer of 12 balls in a well-greased tube pan, sprinkle with some of the remaining molasses mixture, cinnamon mixture and nuts. Repeat with remaining dough balls to make second layer, and use up all the remaining ingredients by spreading over top layer. Cover and let rise until doubled in bulk, about 35 minutes. Bake in a moderate oven, 350°, 30-35 minutes. Cool for a minute or two after removing from oven, then invert pan and turn out cake. Makes 1 coffee cake, about 8 servings.

BRER RABBIT MOLASSES

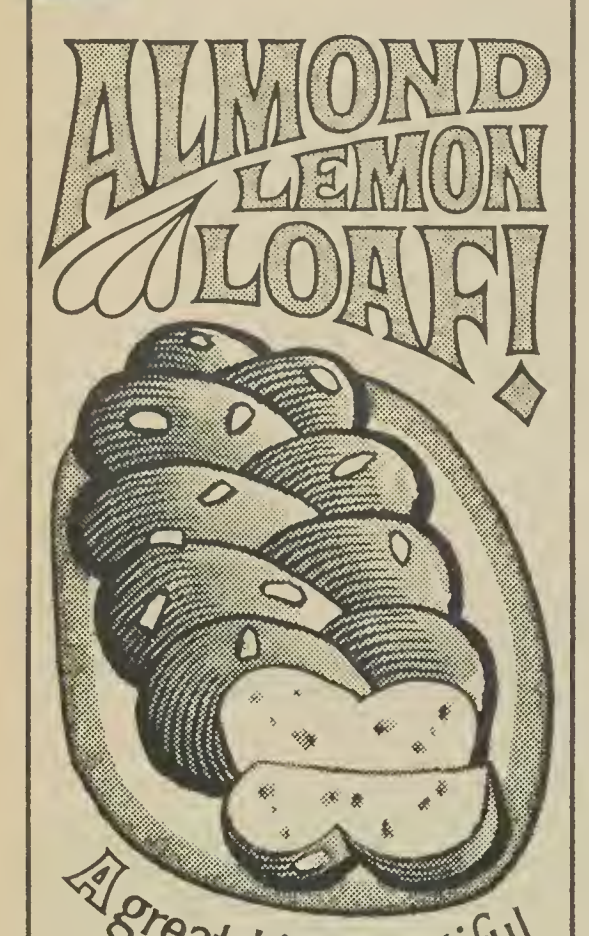
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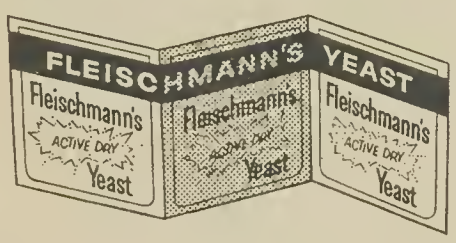
2 packages Fleischmann's Active Dry Yeast
1 cup warm potato water or warm water (105°-115° F.)
¼ cup lukewarm mashed potatoes
8 tablespoons sugar
5¼ cups unsifted flour (about)
1 teaspoon salt 2 eggs, beaten
½ cup (1 stick) Fleischmann's Margarine, melted and cooled
1 cup dark seedless raisins
½ cup chopped Planters Almonds
2 teaspoons grated lemon peel

Dissolve yeast in warm potato water. Add mashed potatoes, 2 tablespoons sugar, 1 cup flour. Beat until smooth. Cover; let rise until bubbly (about ½ hour). Stir down; add rest of sugar, salt, 1 cup flour; beat until smooth.

Stir in eggs, then margarine. Add raisins, almonds, lemon peel. Stir in enough flour to make soft dough. Knead until smooth, about 5 minutes. Place in greased bowl; turn to grease top. Cover; let rise in warm draft-free place until doubled, about 1 hour.

Punch down. Divide into 4 equal parts. Let rest 5 min. Roll each piece to 16" long rope. Braid 2 ropes together. Repeat with remaining 2 ropes. Place on greased baking sheets. Cover; let rise in warm draft-free place until doubled, about 40 min. Bake at 350° 30 min. or until done. Makes 2 great big beautiful braids.

Fleischmann's Yeast ANOTHER FINE PRODUCT OF STANDARD BRANDS



What's Your Hobby?

Hobby letters from our readers

DRIED PLANT ARRANGEMENT

Since the women in our neighborhood took up the study and arrangement of dried plant material, there's never a weed or a seed that goes unnoticed. For us the collecting of flowers, leaves, seeds, pods and cones for drying is a fascinating and rewarding hobby that may be pursued throughout the year. It has given us a keener awareness of nature, and an opportunity to discover beauty in common things. Every twig and lowly weed now takes on artistic possibilities.

Among the wild plants, many flowers may be dried. Perhaps pearly everlasting tops the list. Tansy and goldenrod keep their yellow color. Stalks of dock, collected at various stages, provide greens and browns. Cattails are picturesque. The beauty of evergreen cones is well-known, but we look, too, for the smaller cones of birch and alder.

The common milkweed pod is used in endless ways. Hornbeams produce interesting seeds. Maple keys are pretty and will hold to the stem if gathered when green. One of my favorite materials is the sporecase of the sensitive fern. The bright bittersweet berry is so attractive that it may be on the conservation list in some places. Never be greedy about gathering wild plants. It is a good rule to leave ten times as much as one takes.

Numerous garden flowers and vegetables may be dried. Seed catalogs list many everlastings, some of which may not do well in a certain locality, but one must experiment to find out. Strawberry, popcorn, gourds, okra and martynia pods, summer squashes, and even onions are some of the things that can be used. And don't overlook cornhusks. Our ancestors made dolls and rugs from them.

Seed pods of poppies, iris, peonies and lemon lilies are especially good. Sometimes the calyx of a flower is attractive after the petals have dropped.

As a general rule, the time to gather plant material is just as it becomes mature. The simplest way to dry flowers is to hang them upside down in a dim attic or dark closet. I use a dusky corner of the barn where there is a free circulation of air. Flowers may also be preserved by burying them carefully (upside down) in fine clean sand or borax.

Foliage is preserved by the glycerine method, and since this is comparatively expensive, shop around a little for the glycerine. A village drug store charged us only half as much as a city store. Make a solution of one-third water and two-thirds glycerine. Prepare the branch by pounding the lower two inches with a hammer, so that fiber and bark are split. Then stand it in a jar containing the solution.

Most things will take about two weeks to absorb the glycerine. Single leaves, such as lily-of-the-valley, rhododendron, and magnolia, may be submerged in a solution, half water and half glycerine. This mixture can be reused.

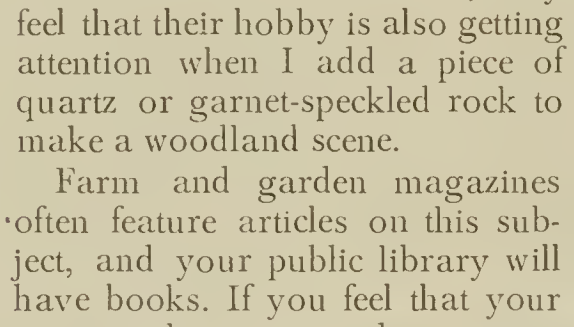
Everyone is familiar with the oldtime method of pressing leaves, flowers and ferns. How often I come upon four-leaf clovers where my children have pressed them in a favorite book! Material should be placed carefully between thicknesses of newspaper and weighted down. About three weeks will be required for drying.

The same principles of design apply to the arrangement of dried material as to fresh flowers, but a little more care may be needed because the dried arrangement lasts indefinitely, while the fresh flowers fade in a short time.

Driftwood makes a perfect background for dried material. While interesting specimens may be picked up on ocean beaches, our pasture brook has yielded pieces of delightful shape, texture and color. Often a weathered stick, lying on the forest floor, will have pleasing lines. A piece grown with lichens or moss may provide an idea for an arrangement. Bracket fungus is useful.

Unusual stones combine with driftwood and dried material to make an arrangement. Since my sons are mineral collectors, they feel that their hobby is also getting attention when I add a piece of quartz or garnet-speckled rock to make a woodland scene.

Farm and garden magazines often feature articles on this subject, and your public library will have books. If you feel that your artistic talents are inadequate, try copying pictures of things others have done. Books that have helped me are: "The Complete Book of Dried Arrangements," by Raye Miller Underwood; "The Art of Driftwood and Dried Arrangements," by Tatsuo Ishimoto; and "Winter Bouquets with Color," by Ruth Gannon. — Mrs. Ruth H. Enck, Maryland, New York



OPERATION SPRINGTIME

By Eleanor A. Chaffee

April ties the bonnets
Of yellow daffodils,
Stitches with a green thread
The edges of the hills,
Sprinkles silver rain to wake
Seeds still taking naps,
Ruffles tiny feathers
On robins' saucy caps.

April gives to May the key
Of summer's golden laughter,
And the tide of fresh, young joy
That always follows after!

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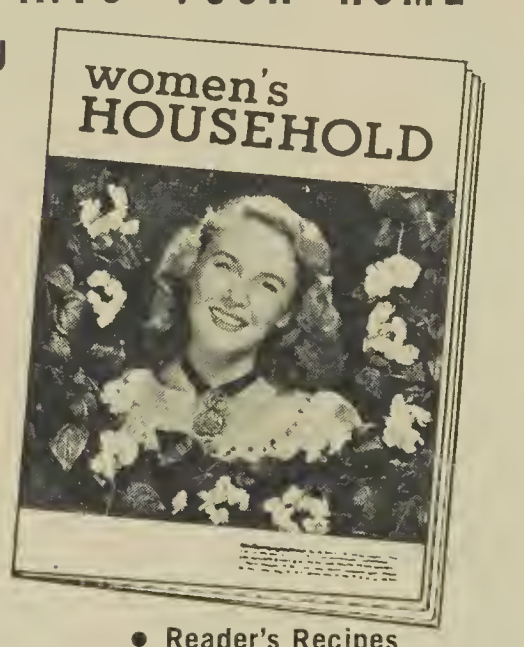
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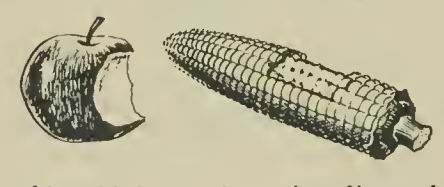
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HAVE FUN WITH HERBS!

by Nenetzin R. White

HERBS ARE interesting, pretty, often fragrant, healthful, and they're fun! They are not hard to grow and are even easier to use. I can remember having mint in my wild flower garden when I was very small, and all the children in our neighborhood (some of their parents, too) learned to use a little sprig in their lemonade, and later in tea.

When we were first married, I put some herbs in my first perennial bed, but soon wanted many more and developed a true herb garden, all by itself. It was the shape of a quarter of a pie, with radii of boxwood and ring divisions of the same dwarf box. This gave me quite a few planting pockets and was very attractive. It also allowed me to label each pocket, a great boon when you send friends or children for a sprig of this or that. Just as a hint, make a plot plan and tuck it into your desk, for labels get lost or mixed up, and herbs are sometimes quite difficult to identify.

Herbs tend to intrude upon each other and become masses, so it is advisable to divide the sections. Metal or plastic edging is inexpensive and suitable. In building these for other people, we often use 1" x 4" redwood boards, as they are also quite inexpensive. Flue lining tiles (of about 12") set on end will help you to have a lot of herbs in a very small area. Some of the tiles can be cut or buried in the soil to give you a flight of little terraces, or they can be used in many other delightful patterns. Just be sure that all plants get some sunlight.

From a health standpoint, use herbs and cut down on salt. This is important for many people who are on a salt-free diet, or who have to watch their weight (and who doesn't). By the proper use of fresh herbs, you can also cut down on heavy spices, and your foods will be more interesting and digestible.

You will love working, weeding, transplanting, and cutting your herbs. They snap back rather well when bruised, and the potpourri of fragrances is heavenly. My suggestion is that you start with 10 to 12 varieties and enlarge this number, as you become a real gourmet. In the following listings, I am giving you only the culinary values of the herbs; many also have medicinal or household uses.

Anise germinates from seed if it's not more than two years old. This herb is slow growing, tends to lie on the ground, and doesn't transplant easily. Use fresh leaves in a salad or as a garnish; use seed in bread, cake, applesauce, stew, soup, and confections.

Basil. There are many varieties of basil, but sweet basil or its new ornamental offspring, "Dark Opal," grow into lovely little bushes. Propagates by seed, and the fresh leaf is used in soups, stews, salads, and in anything with tomatoes. I will never forget my family's delight the first time I used some fresh chopped basil leaves in spaghetti sauce.

Borage propagates easily from seed and develops into a plant 12 to 18 inches high, with gorgeous blue, drooping, star-shaped flowers. Has a unique taste; both leaves and flowers are used in cold drinks and to garnish salads. Also used in pickles.

Caraway comes easily from seed, but doesn't transplant well. This herb has feathery foliage and delicate, creamy white umbels of flowers, resembling Queen Anne's Lace. Grows about 12 inches high. The leaf is used in salads and soups. Use seed (plant will not set seed the first year, so use a few leaves instead) in rye bread, cake, cheese, sauerkraut, soups, etc. I always use a small bag of seed or a few sprigs of the plant in lamb stew. Raises an ordinary dish to new heights!

Chives. This plant comes slowly from seed (it's a perennial), but is very easily grown from root bulb divisions. If you live within driving distance of Mecklenburg, New York, I would be delighted to start you growing an herb you will use in many ways and for many years. The plants stand 12 to 15 inches high and have most attractive pompons of lavender flowers, which are great in flower arrangements. Chives have a mild onion flavor and are used chopped in salads, eggs, soft cheeses, mashed potatoes, or any place where you need just a hint of onion. I make an hors d'oeuvre of cream cheese with snippings of chives, thyme, marjoram, and dill, rolled in dried beef to form small cornucopias.

Dill propagates easily from seed and stands about 3 feet tall with feathery foliage and flower umbels. Don't just use this herb for dill pickles; the clipped foliage is wonderful in salads, cottage or cream cheese, sauce for fish or chicken, and potato salad. I use a few clipped leaves or crushed seeds in cabbage rolls, and my family wants this dish frequently.

Lavender is grown for its fragrant flowers and foliage. It can be started from seed, but more easily by dividing plants. I can't think of a way to eat this, but you must grow some. You and your children will love to rub the foliage and smell the wonderful aroma. I always have some hanging in the clothes closet and a few sprigs in my linen closet, between the pillow slips.

Sweet Marjoram grows from seed, but is slow to germinate. Grows about 18 inches high and is one of the most versatile herbs. Use the leaf in soups, roasts, stews, salads, vegetable sauces, and cheese dishes. This most popular herb has been in use in America since Colonial days; you will enjoy its sweet scent.

Mint. While there are many kinds of mint, the most versatile and usable is spearmint. This will

(Continued on page 35)

Have fun with herbs!

(Continued from page 34)

come from seed, but more easily from a small piece of root. Traditionally used with lamb — as sprigs, or in a sauce or jelly. Add a sprig to hot or iced tea, and use snippings in salads, and for the southern mint julep.

Nasturtium propagates easily from seed, and I just can't by-pass this because it blossoms profusely and is wonderful as an edging. The flowers, leaves, and half-ripened seeds are most different in a salad. I have a good friend who insists that a sandwich of nasturtium leaves is really "out of this world."

Parsley. Soak seed for 24 hours to hasten germination. The curly type makes an excellent edging and can be used in just everything, especially in butter over new potatoes! It is a biennial and may be "kept over" in the house or garden.

Rosemary will grow from seed but is slow. This is a pinelike evergreen that will eventually become quite tall. It's worth taking in over winter. The leaves are sweet and intensely aromatic and are used with meats, soups and vegetables. Try cutting slits in your next leg of lamb and stuffing the pockets with rosemary and garlic (if garlic agrees with your family). With small, browned potatoes around the roast, this is a dish fit for a king.

Sage will grow from seed, but it is quite tender, so protect this one. It is a handsome perennial, a foot or so tall. This plant has greyish foliage and light purple flowers in terminal spikes. It is used in sausage and other meats, in stews, and is a traditional ingredient for poultry stuffing. A little of it goes a long way, since it is quite potent.

Summer Savory grows easily from seed. It's a dainty annual with slender leaves and pinkish-lavender flowers which are used in dressings, salads, soups, stews, and with meats. Try it with string beans and butter — even the children will ask for more.

Tarragon. This doesn't come from seeds, so you will have to buy rooted cuttings or plants. Tarragon will winterkill unless it has perfect drainage and a good mulch. Use it on steaks, chops, and baked chicken, even on ham slices, and for salads and vinegars, it's "the most." Heat a mild wine vinegar, pour it over stems of tarragon, and you will be the envy of all your friends every time you serve this on a salad.

Thyme. While this is a perennial and grows from seed, we usually treat it as an annual, for it often winterkills. The leaf is used in vinegars, meat sauces, poultry stuffings, pork, veal, soups, and chowders. I use small snips in a green salad. Many varieties of thyme are used around stepping stones.

My listing of herbs is far from complete, but I have tried to include the most usable and, of course, my favorites. You will be sure to find other ways of using them than those mentioned here. Be sparing in the use of herbs, at least at first. Their flavor should not "hit you over the head," but should be subtle.

Most of these seeds can be sown directly outdoors after danger of frost is over, but that makes your use of herbs a rather late-season deal. It's far better to start the seeds inside or buy them in plant bands.

Herbs can be dried by cutting the stems in their prime (early morning is the best time), tying a few together, and hanging in a dry, airy place, away from the sun. As soon as the dried leaves will crumble, put them in labeled, sealed containers, and enjoy them all winter.

A "bouquet garni" is a bouquet of fresh herbs, tied at the basal stem ends. Small bouquets or clippings of herbs in small packages freeze well. I use saran wrap for this and wrap the packages in foil after they are frozen. I immerse this bouquet garni in almost anything I am cooking — it's delightful. Also use this as an herb brush when barbecuing chicken, chops, hamburg, or steaks. Dipped in an oil and vinegar solution and brushed on your meats, it imparts a delicate but delightful taste. Here is where you can use your own imagination, or use the herbs that are growing best. What fun is in store for you!

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Dr. Helen G. Canoyer, Dean of the College, and Dr. Eva Mueller, program director of the Survey Research Center, University of Michigan, will be the keynote speakers. Dr. Canoyer will tell about her work with the national Consumer Advisory Council, and Dr. Mueller's topic will be "Consumer Decisions: Rational or Irrational."

In the afternoon there will be a panel discussion on the question, "Is the consumer sovereign?" Members of the panel will be Professor Gordon Bivens, head of the Center of Consumer Affairs at the University of Wisconsin; Dr. Gwen Bymers, associate professor of household economics and management at Cornell; Dr. Persia Campbell, chairman of the economics department, Queens College; and Dr. George Hildebrand, professor in the Industrial and Labor Relations School at Cornell.

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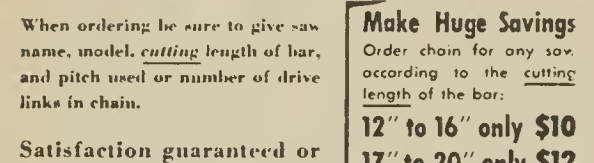
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BEEF CATTLEMEN

At the recent annual meeting of the New York Beef Cattlemen's Association, held in Syracuse, the "Beef Cattleman of the Year" award was presented to Bradford L. Sherwood, Appleton. His citation read:

"In recognition of outstanding service to the beef cattle industry. In addition to his untiring efforts to promote a sound beef cattle program in his county and state, Mr. Sherwood has been a tremendous force in strengthening the youth program in the beef cattle field in western New York."

To Donald Smith, Gasport, went recognition as outstanding 4-H beef project member for 1963. He was chosen from twenty-eight county nominees.

Donald bought his first two Angus heifers six years ago; now he owns four registered purebred Angus heifers, and has fed and marketed six choice baby beef steers. Besides his Angus project, he raises hogs, and works with his father in growing more than 100 acres of grain and other field crops annually.

Officers

Officers elected at the meeting were: president, Harold Brown, Brant Lake; vice president, Dale Werth, Cohocton; treasurer, Roger Bradley, King Ferry; and secretary, M. D. Lacy, Ithaca.

SPRING SEEDINGS

by Gordon Conklin

I asked Walt Griffeth, agronomist at Cornell, the other day about what a farmer should do if his only purpose was to get a better seeding. Walt recommends, if a farmer is concerned only about his seeding and not all the other angles such as grain for feed, bedding, etc., that he should seed in the spring without a nurse crop.

Seed Early

This means seeding early when soil moisture conditions are good — at the same time oats would normally be planted. Walt would use band seeding; the fertilizer is drilled in and the seed banded right over the fertilizer row (not *in* it) with ¼ to ½ inch of soil over the seed. Covering the seed is accomplished about as well as any way by pulling a cultipacker right behind the grain drill.

Weeds can be controlled with a chemical having the somewhat complicated name of 4 (2,4-DB); it should be applied when legume seedlings are 2 to 4 inches tall and the weeds are seedlings. Like most chemical weed control measures, this has to be done right and at the right time if it is really going to do the job.

I am told that some farmers are experimenting a bit with the use of dinitros (Dow Premerge or Sinox P.E.) for application on seedings made without a nurse crop. This is apparently legal as far as the Food and Drug Administration is concerned, but farm experience and research is still pretty scant to give this practice an unqualified green light.

Walt reports that on College research plots as much as 2½ to 3 tons of hay have been harvested in two cuttings the same year that seedings have been made early in the spring without a nurse crop. More farmers are asking about this practice as interest in growing oats wanes.

Farmers are also making summer seedings, usually planted sometime in August without a nurse crop, but there is apt to be a water shortage at that time that may gum up the works. There also seems to be more problems with weed control at this later time in the growing season.



LOWER FEED COSTS

Bob Christensen of the University of New Hampshire suggests to dairymen and poultrymen these things for saving $4 to $6 a ton on feed costs:

1. Buy Bulk. Handling bagged feed is time-consuming and costly both to the farmer and the feedman.

2. Buy in Quantity. The more bought at one time, the lower becomes the cost of hauling and delivery per hundred-weight. Feed companies will sometimes give price discounts on large purchases.

3. Shop Around. Look for the lowest-priced feed that does the job. Look behind the brand name at the ingredients.

4. Do Some "Horse-Trading." Ask for bulk and quantity discounts; ask about discounts on short hauls. Bargain as if the list prices had never been seen.

5. Buy Mash. Some poultry feeding setups must use pelletized feed but others can use mash. Pellet feeds cost more to manufacture and are priced higher than comparable mashes.

6. Pay Cash. Many feed companies offer cash discounts. Although it may be tough to do, operating on a cash basis can save shekels.

7. Borrow from Credit Specialists. Credit costs money; that offered by the feed company has a price, and the producer pays it. You can probably borrow elsewhere at lower cost.

8. Mill Feed at the Farm. Farm feed milling can be profitable for some producers, particularly if feed volume is large.

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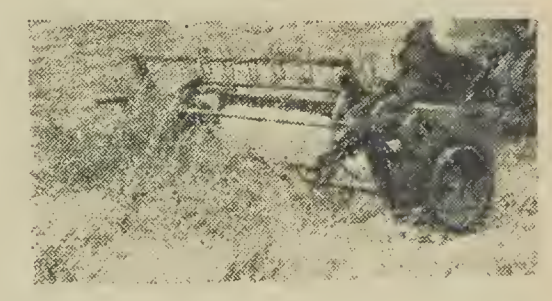
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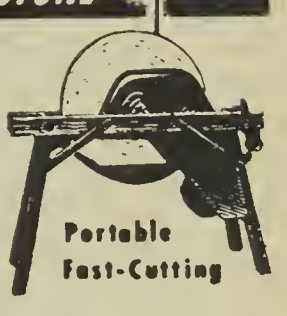
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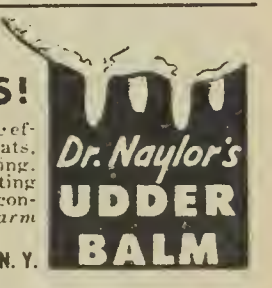
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All across America publications are enthusiastically acclaiming the merits of E. R. Eastman's new book, *Journey To Day Before Yesterday*. And rightly so, for not in years has there been a book so full of rollicking humor, so wholesome for adults and children to read. With all this, the author has managed to give a complete and valuable historic picture of the way folks worked, played, and lived when Grandpa and Grandma were young and gay, and free from all the gadgets that complicate our lives today.

Here's what some reviewers say:

The New York Times: "A time of moonlight rides, quilting bees, village bands, old swimming holes, and peddlers who brought to isolated homes bits of luxury and batches of gossip." The Ithaca Journal: "Ed Eastman writes from a fine memory and a full heart." Buffalo Evening News: . . . "Eastman follows the tradition of Whittier." Times Union, Albany, N.Y.: "A box lunch, full of homemade bread and hand-churned butter, sandwiched between memories." Wilmington, Delaware, Morning News: "A wedding of words and pictures of rural America as it was at the turn of the century."

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The dates of this year's Alaska Tour are July 10 to August 1. Reservations are already coming in, and it looks as though this tour will as usual sell out early.

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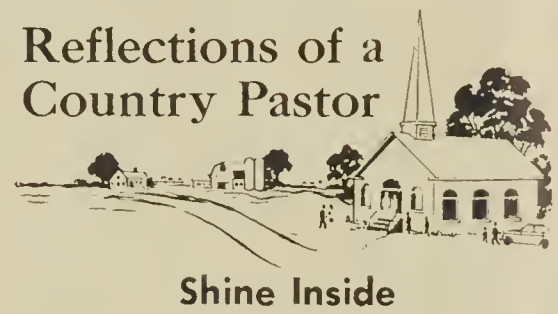
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Reflections of a Country Pastor



Shine Inside

IN THE days when shoeshine "parlors" were common, I went out to get my shoes cleaned and polished before a speaking engagement.

"Shine Inside" read the clean black-on-white sign in the window. A flashing white smile in a black face greeted me as I took my seat. The deft hands did their work in rhythmic motion, while what went on behind that colored brow must have matched that sign and smile.

"Why not make that your habit?" I reflected. A face that lights up must have something shining inside —in the heart. That should be a Christian's outlook on life. Also his purpose in life—to make a bright spot for others.

When the Greeks were developing their golden age their aim was perfection. Physical beauty and strength became their ideal. Soon, however, they realized that something more was needed, so they instituted a new exercise, the "glebe."

At the climax of this activity the person was to think of the most inspiring or exhilerating experience he had ever enjoyed. He was to hold this in mind and let it show in brightness of expression, especially in the eyes.

Evidently the Greeks were searching for something to stimulate the spirit so that an aliveness would light up the person. He must become an animated statue.

"Ye are the light of the world," declared Jesus.—*Arthur Moody*

American Agriculturist, April, 1964



COULD MEET ALL COMPETITION

by Amos Kirby
New Jersey Editor

A vegetable research center in southern New Jersey is being advocated by Dr. Frank App of Bridgeton. Dr. App, a former president of the New Jersey Farm Bureau and agronomist for many years at Seabrook Farms, has prepared a statistical report showing why he thinks there should be such a center in the lower part of the State. In this report Dr. App states that one-half of the value of all farm crops comes from vegetables, and that three counties (Cumberland, Salem and Gloucester) produce two-thirds of all the vegetables grown in New Jersey.

In addition to his soil and crop programs at Seabrook Farms, Dr. App has been consultant to a number of processors and big growers in other areas — and has taken a close look at New Jersey's big competitor, California. In his opinion, with a research center devoted to the major crops in this three-county area, New Jersey can meet the competition from the West Coast as well as from other areas.

Dr. App does not subscribe to the idea that the vegetable industry has reached the saturation point. He points to the Campbell Soup Company tomato research program as an illustration of what can be done. It has increased tomato yields from six tons to as much as 30 tons per acre.

A Growing Industry

New Jersey has an infant business that shows signs of growing up — the business of producing nursery stock for the ever-expanding urban and suburban towns. Here are a few statistics from Fred Jackson of the New Jersey Department of Agriculture showing what is taking place:

In 1958, there were 663 nurseries in the State, with 6,801 acres devoted to the growing of plants. At the end of 1963 the number had grown to 1,253 with 10,075 acres producing shrubbery and allied plants for the home market.

In New Jersey we look upon any crop that involves 10,000 to 15,000 acres of land as of prime importance; we think of 15,000 acres of tomatoes or 16,000 of white potatoes as something worth talking about. Looking at the 10,000 acres of land devoted to the growing of nursery stock it is evident that this industry is growing up at a very rapid rate. In dollars and cents the nursery industry is big business. The only figures we have for 1958 show that the bushes and plants had a value of nearly $15 million. Every county is engaged in growing nursery stock, but the three top are Monmouth, Cumberland and Gloucester.

I dropped in to discuss the nursery business with Don McAllister of Kosters Nurseries, near Bridgeton. Here is how Don sizes up the future of the nursery industry:

He states that every new home creates a market for shrubbery; every new owner adds to the original planting; some plants die and have to be replaced — thus the nursery business expands. But while the market is still good, one should not venture in unless he knows how to swim!

HERE AND THERE

Dr. Leland Merrill, Jr., Director of the Experiment Station, has a brand-new project to develop. With a $1 million grant from the Federal Public Health Administration, the Station is starting a five-year research project on pesticides — an intensive study of soils to determine the effect of pesticides and their effect on the micro-organisms that live in the earth.

It seems that little is known on what these pesticides are doing to the soils; neither do we know whether these potent materials may be reducing the productivity of our fields by creating conditions under which soil micro-organisms are having a difficult time existing.

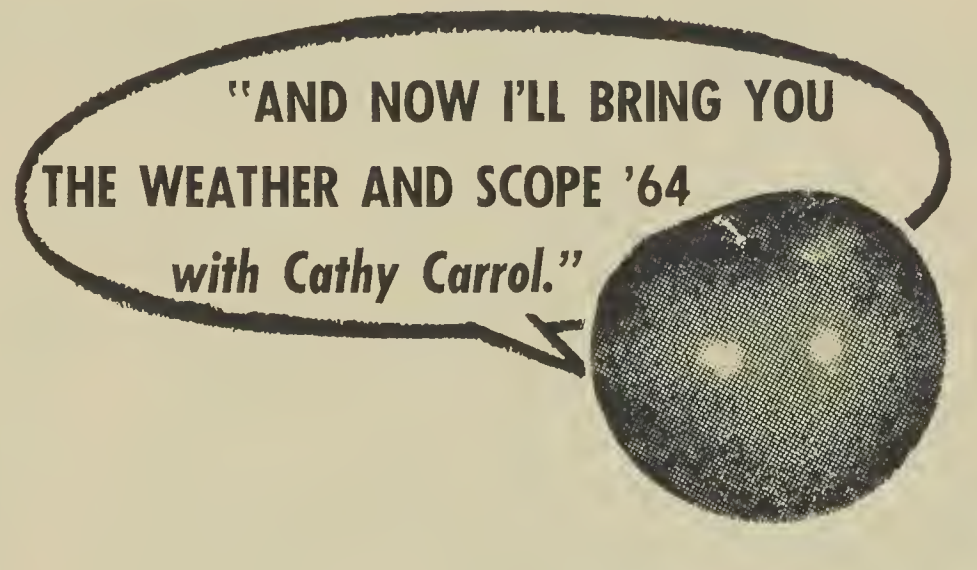
Warning — Secretary of Agriculture Phillip Alampi, speaking in Atlantic County, urged growers of blueberries and peaches to take a keen interest in their markets. There has been a big expansion in the blueberry acreage in recent years and more land planted to peaches. The Secretary is concerned that plantings have been increased faster than markets have been developed.

Help — A 40-acre blueberry-cranberry research project is now being developed on the Wharton Tract, Atlantic County, that may be similar to what Dr. App has in mind for the vegetable industry.

Watch — Dr. William Mitchell, Extension agronomist at the University of Delaware, has set a high goal for corn producers. He has told Delaware growers that, if they are going to survive, they should be aiming at 200 bushels per acre.

His aim is to jar growers from their present complacency with 100 bushels per acre. He thinks it entirely possible to produce 150 to 200 bushels on many farms in that State. Already, 225 bushels per acre has been produced on some of the experimental plots at the Georgetown Substation.

Reward — The New Jersey Asparagus Council has presented a plaque to Food Fair Stores, Philadelphia, in recognition of their efforts in merchandising asparagus. The Food Fair Stores utilized the promotion material prepared by the Council, and it resulted in increased sales. This demonstrates that consumer interest can be developed if a product is properly advertised.



From now until the end of June, The Western New York Apple Growers will bring you Scope '64, a new program service for women, featuring Cathy Carrol . . . and the important Friday look at the weather for the weekend.

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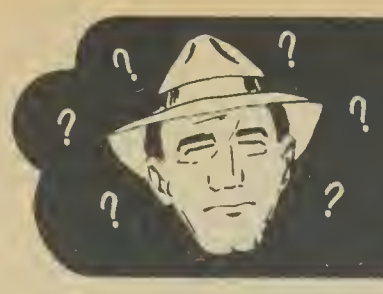
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Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
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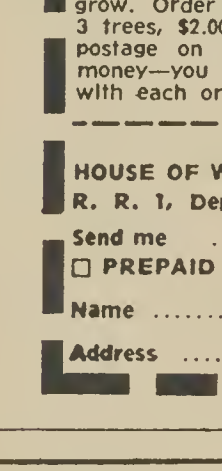
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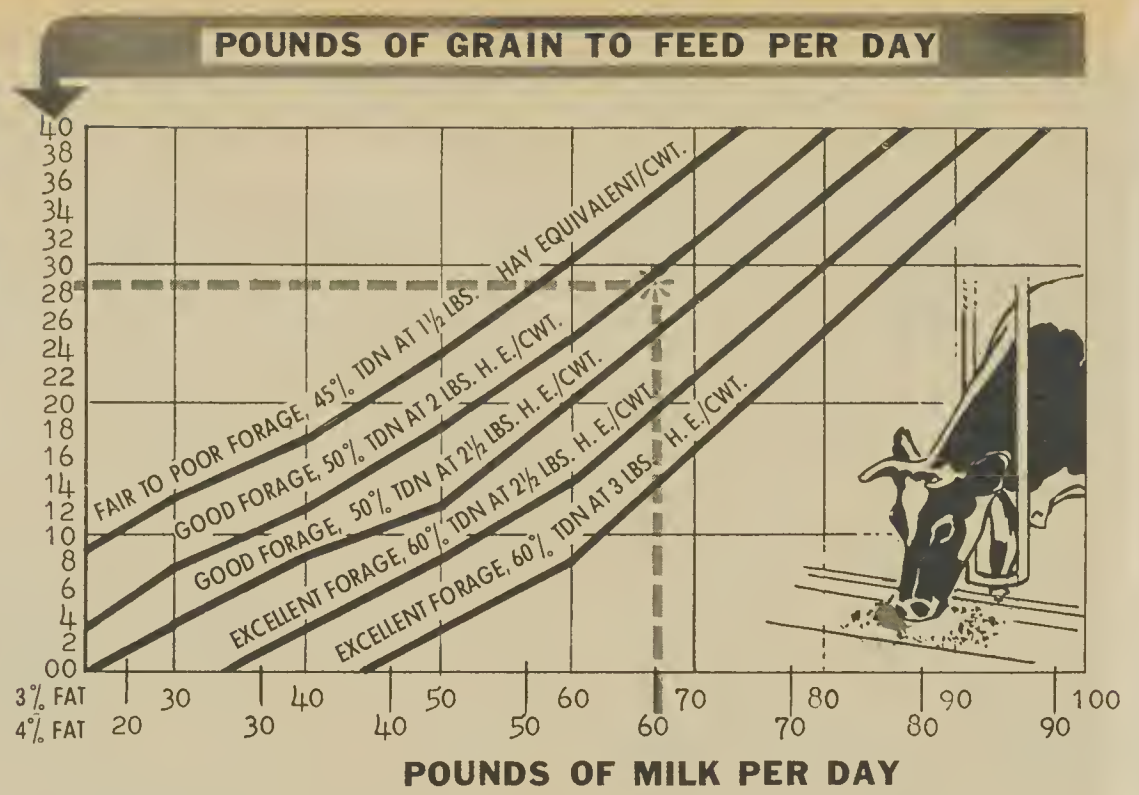
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*** EXAMPLE: 60 pounds per day of 4 percent milk calls for 28.8 lbs. of grain per day if feeding good forage at two pounds hay equivalent per cwt. of body weight.**

MORRISON FEEDING STANDARDS REVISED

JUST RECENTLY, the "bible" for feeding dairy cattle — Morrison's FEEDS AND FEEDING — has been revised. The changes involve grain feeding levels, and come generally as a result of two research findings — that the digestibility of feed decreases as the rate of feeding increases, and that as a cow eats more grain she adjusts her forage intake downward.

The new feeding guides also fit the feeding recommendations more closely to the lactation curve, calling for more grain early in lactation, and less as the cow approaches her dry period. It's a bit like the throttling governor on a tractor — it pours more "coal" to the engine when it's needed, lets up when the load slackens.

Top Production

Research workers and farmers have long noticed that it's been necessary to feed more than the Morrison tables indicate in order to get really high milk production from the top producers. Tom Reid of Cornell University found that, as the rate of grain feeding moves upward, more of the feed tends to be diverted from the milk pail to fattening and the bodily functions of keeping the "plant" running.

He also found that when grain intake reaches 12-16 pounds per day for a particular cow, her forage intake drops approximately ½ pound for every increase of one pound in grain consumed. As a thumb rule, then, a cow getting 30 pounds of grain per day would consume around 7 pounds less of hay equivalent than she would if she were consuming only 16 pounds of grain. The new feeding guides take into account this reduced forage intake.

It is pretty well agreed now that dairymen should gear their grain feeding programs more closely to the needs of the cow than was once the case. This includes a conditioning period during the last two weeks of the dry period; the recommendation is gradually to increase grain during those two weeks until the cow is eating 15-20 pounds per day by the time she calves. There is evidence that this lowers the danger of acetonemia and also sets the stage for challenge feeding.

Challenge feeding supplies the cow with a little more than enough TDN for her milk production; if she has the inherited ability to increase her production still more she will have the nutrients available to do it. It is a little bit like the attitude of many farmers toward fertilizer — they want to be darn sure they have enough plant food so that if the weather and everything else breaks right, at least fertilizer will not be a limiting factor in crop production.

This means that after the cow calves, grain intake should be increased as rapidly as the cow will take it, until she is either eating all she can get down or her maximum milk production is reached. This may happen within three weeks after freshening with some cows, but may take as long as two months for some individuals to "peak."

Adjust Downward

Once she hits the upper bumper, either in appetite for grain or in production, then an adjustment is recommended based on DHIA recommendations or some other grain feeding table. Everybody agrees that it is important to keep close tabs on the response of the cow so that a downward adjustment in grain may be made as the lactation goes on so that grain feeding rates are hooked to production levels. Normally, this will mean a smaller amount of grain fed during the latter part of the lactation than previously indicated in the Morrison guide.

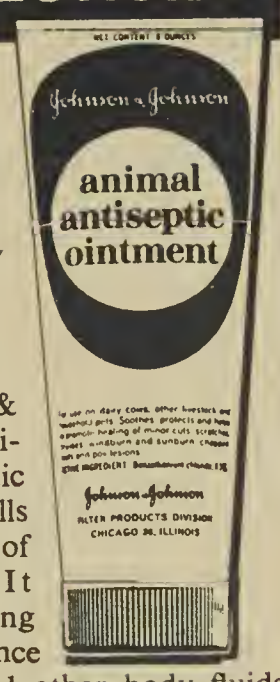
Often, the newer system does not require any more grain per cow annually, but it does redistribute the grain feeding pattern so that it more closely parallels the cow's need for nutrients to pass along to the milk pail. After all, a cow is merely a "molecular rearranger," taking molecules of various elements and rearranging them in a form acceptable to the consumer; she can't rearrange and put into the milk pail what she hasn't

(Continued on page 43)



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WHAT'S NEW IN SEED?
quite a few things you should know about
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Lindsay Trerise, sales representative for Niagara Mohawk Power Corporation, checks bank of electric meters at Flack farm.



"Kilowatt Kost" Study

FROM NOVEMBER, 1962, through October, 1963, on the Lloyd W. Flack farm near Potsdam, New York, a continuing study was made of the use and cost of electricity on the farm and in the home. The Flacks have a 433-acre farm, with 112 head of cattle, of which 50 are milking. Thirty-seven different electric meters were connected to farm and domestic appliances, and readings taken monthly over the period.

The study was instituted by the Niagara Mohawk Power Corporation, in cooperation with the St. Lawrence County agricultural agent and the Agricultural Engineering Department of Cornell University. The Flack farm was chosen because of its extensive use of electrical equipment, and because it is adequately wired.

Biggest Worker

It was found that the biggest "worker" among the farm equipment was the dairy water heater, which used almost 7,000 kilowatt hours of electricity and produced 30,000 gallons of hot water, at a total cost of just over $113. Next in line in output was the bulk milk cooler, which kept 600,000 pounds of milk cool with 5,921 kilowatt hours of work. The cost for this was $95.

In the residence, supplemental electric heating facilities worked the longest number of hours — 20,364 kilowatt hours, at a cost of $327. The Flack home is a 10-room frame dwelling, and six of the rooms are heated with electricity, the others with coal and wood. The water heater in the house worked 8,600 kilowatt hours at a cost of $139.

Other household equipment comprised the furnace blower, refrigerator-freezer (a 15 cubic foot, self-defrosting unit, which used 1,850 kilowatt hours); two other freezers; the automatic washer (which, with 12 loads of wash per week used 155 kilowatt hours at a cost of only $2.55); the clothes drier (1,335 hours and $21.70); the soft water pump; the dishwasher; and, of course, the two television sets.

Other Equipment

Next in cost among the farm appliances was the hay drier. This has a 7½ h.p. motor, and dries about 170 tons of first and second cutting of hay. It used 4,700 kilowatt hours during the study and cost $75.

In addition there were the milker vacuum pump; the silo unloader; the milkhouse heater (2,393 kilowatt hours and $38); the ventilation fan in the barn; the barn cleaner; bulk tank washer; and many other items, including the area light, which turns on automatically at dusk and goes off at dawn.

The total kilowatt hours used on the farm and in the home for the twelve-month period were 67,944, with total electrical costs amounting to $1,096.

Morrison feeding

(Continued from page 42)

already consumed.

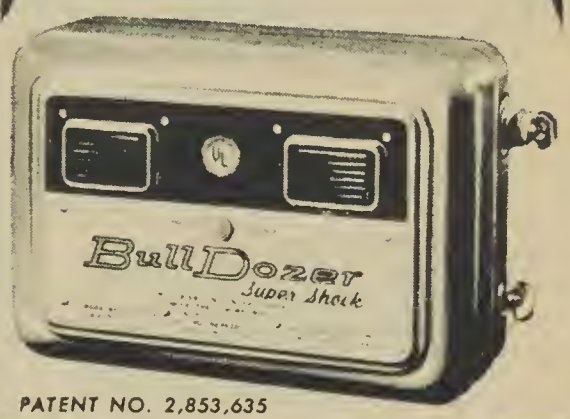
There's not much difference in the old and the new feeding standards in the amount of grain indicated up to a production of 50 pounds of milk per day, although the new standards do run just a bit under Morrison's in the lower end of the production level table. It is in the higher production levels that the differences are quite noticeable.

The accompanying graph is a way of expressing the latest recommendations concerning grain feeding levels. They do not, of course, apply to the two week conditioning period prior to freshening. As an example, if you are feeding good forage at 2 pounds of hay equivalent per 100 pounds of live weight, the graph indicates that a cow producing 60 pounds of 4 percent milk per day should be getting 29 pounds of grain daily.

To meet protein requirements with excellent forage, the recommended protein level is between 12 and 14 percent. If the forages are either "good" or "fair," a grain mixture carrying 14-16 percent total protein will be sufficient unless very high levels of corn silage are being used, in which case protein contents should be moved up to 18 to 20 percent.

Up to 30 pounds of grain a day can be fed on a twice-daily basis, but if you're feeding more than 30 pounds, split it up into portions and give it to old Bossy in three or four feedings. If you have ever tried to sit down and eat a whole box of candy at one sitting, you'll understand her problem.

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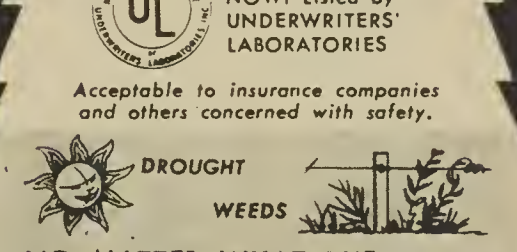


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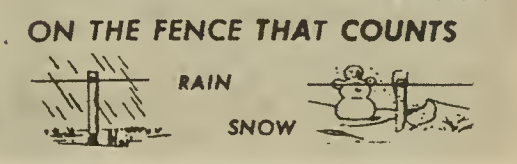
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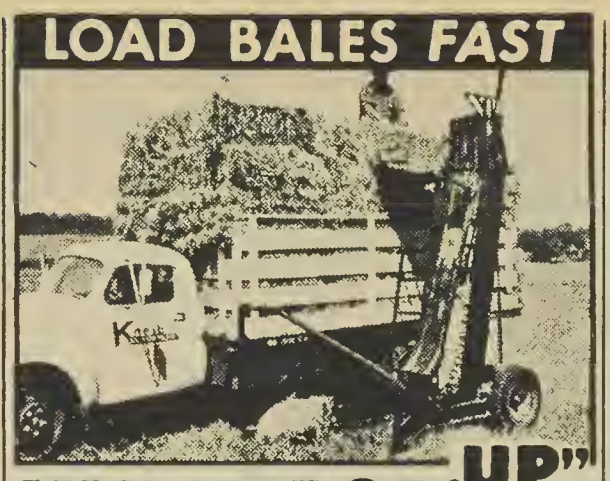
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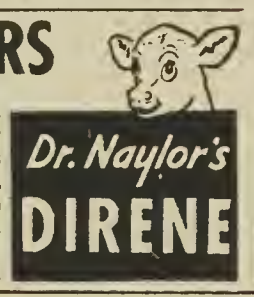
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by Isa Liddell

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Address requests for bulletins, etc. to the Mailing Room at the college addresses given below. There are also many agricultural and garden publications available from the Office of Information, U. S. Department of Agriculture, Washington 25, C. C.

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EF 36 — Vegetable Variety Suggestions

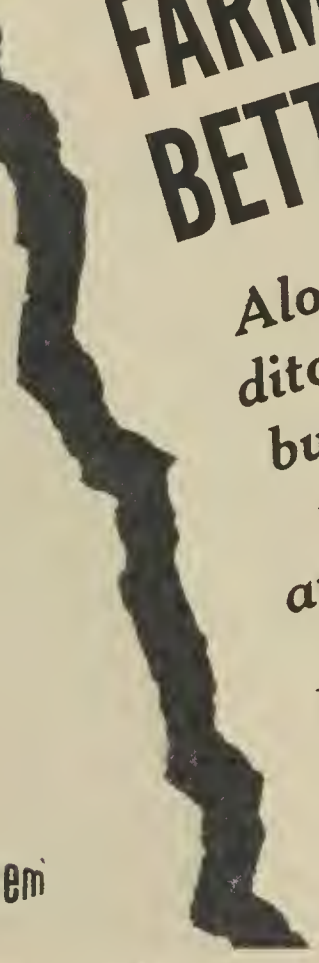
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C 571 — Diseases and Insect Pests of Rhododendron and Azalea
E 298 — Bush Fruits in the Home Garden

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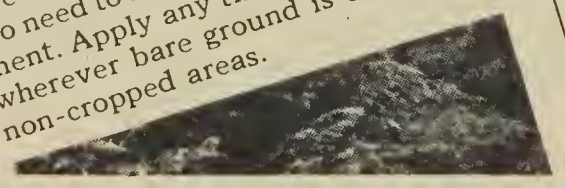
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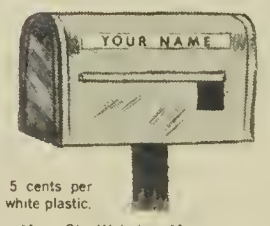
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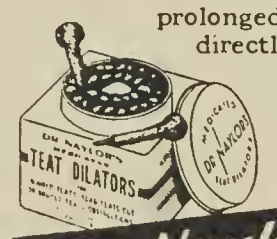


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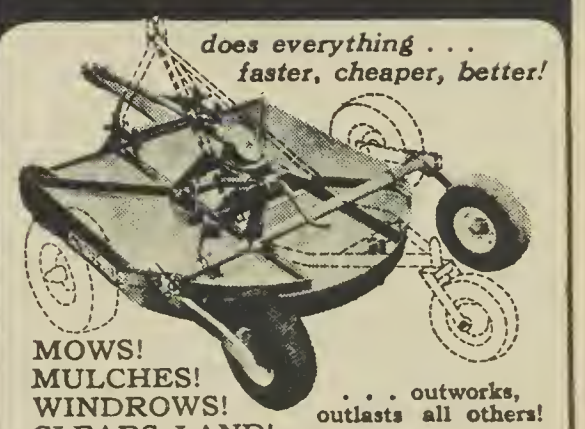
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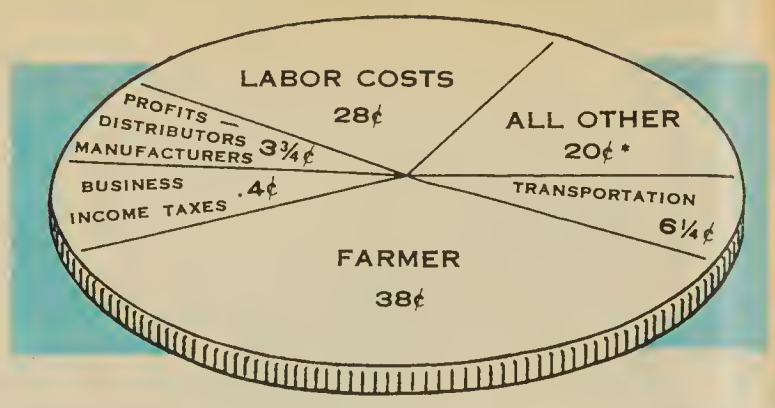
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SELMA ALABAMA



ED EASTMAN'S PAGE

DON'T BLAME THE FARMER



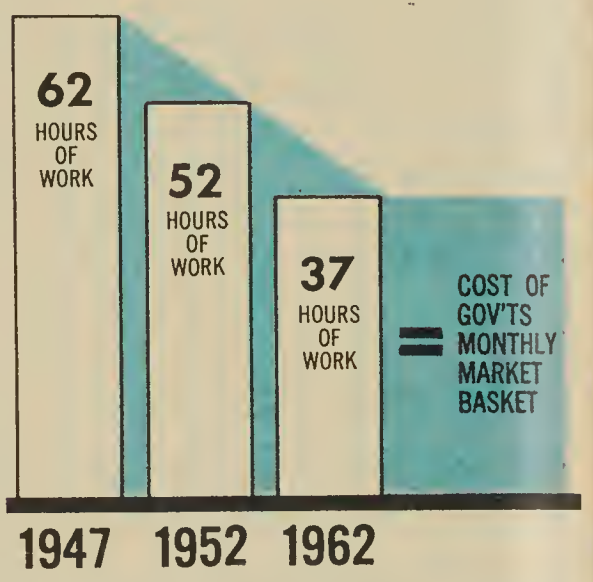
A couple of weeks ago I stood near the check-out counter of a big chain store and watched the items on the grocery carts as the women (and sometimes men) wheeled their purchases up to pay for them and have them put in bags or cartons.

In these wagons were magazines, packages of soft drink or beer, phonograph records, gum, candy, toothpaste and other such supplies, plants, artificial flowers, place mats, candles, clothes pins, gardening gloves, cake pans, and even jigsaw puzzles. In some cases there were more non-grocery items than there were groceries. Yet I am sure that every shopper thought of the bill as the actual cost of the food. And if there was any real thinking done about it, probably the farmer was blamed for the high cost of the food!

In 1939, the last pre-war year, American consumers spent 23 cents of their after-tax income dollar for food. At today's prices, they could buy the same old-style groceries for only 14 cents of their much larger income.

But Americans actually are spending 19 cents of their present after-tax income dollar for food, for which they are getting new and improved food products that are available in greater varieties and abundance. This 19 cents is the lowest percentage of income spent for food by any people in the world at any time in history.

Where your food dollar goes. Courtesy: Grocery Manufacturers of America.



Your "Market Basket" is what the United States government uses to measure food price trends. The diagram shows that in terms of hours of work the consumer is buying food today at lower prices than he has ever paid before. Courtesy: Grocery Manufacturers of America, Inc.

HERE'S YOUR CHANCE

Have you read Ed Eastman's new book — Journey To Day Before Yesterday? If you haven't, you have missed some darn good fun, some good common sense philosophy, and a peek at things as they used to be.

Ever go to an old-time bee like a barn-raising, a spelling match, or a husking or quilting bee?

Did you attend a little red schoolhouse painted white? Did you ever take a buggy ride with your best girl with the lines over the dashboard? Can you still smell that awful mess when Mother made soft soap? How would you like to eat new maple candy hardened on a pan of snow? Or swim in the altogether in the ole swimmin' hole?

Well, here's your chance to relive or know about and laugh at many of these old-time experiences with your friend Ed Eastman as your guide in his wonderful new book.

Send your check or money order for $5.95 per copy to American Agriculturist, Department Book, Savings Bank Building, Ithaca, N. Y. — M.E.R.

IT IS FUN

It was always a sign of Spring when Mother planted the vegetable and flower seeds in boxes in the kitchen window. How eagerly we watched the little plantlets poke their heads irresistibly through the soil to grow into sturdy plants which we transplanted later into the garden!

If care is taken to have the soil just right, to keep the plants turned toward the sun and otherwise well-tended, they can be grown as well in a sunshiny kitchen window as in a greenhouse. Somehow, growing the plants from seed gives you a feeling of real ownership.

If you don't have the soil, maybe you can get a little from a local greenhouse. If you don't have much room, try just a few seeds. It's a partnership job with nature, and it's fun to watch the young plants grow while the snow is still on the ground and the cold winds blow outside.

EASTMAN'S CHESTNUT

A stout woman, wedged into a crowded bus, had great difficulty getting into her tightly-buttoned jacket to get out her bus fare.

"Madam," said the man next to her during her struggles, "let *me* pay your fare."

Whereupon she protested indignantly.

"My only reason for wishing to do so," he explained patiently, "is that you've unbuttoned my suspenders three times trying to get into your pocket!"

American Agriculturist, April, 1964

THE GRANGE— FARMERS' FRIEND

The other night, my friend, E. Victor Underwood (for many years one of the executive officers of the GLF) and I received from our subordinate Forest City Grange 288 here in Ithaca 50-year membership pins, with beautiful certificates signed by Herschel Newsom, Master of the National Grange.

I prize that award very highly indeed. It carries me back to the long-ago days when I was principal of the high school and teacher of agriculture at Interlaken, N. Y., and lecturer of the Interlaken Grange. We had some wonderful fellowship times together in that Grange — a lot of fun — and we learned much through our debates and discussions. Maybe we also had some small part in influencing legislation in the interest of farmers!

Founded in 1867

The personal award also reminded me of the great contribution that the Grange has made to farmers and to the nation. In those troubled days following the Civil War when the South was nearly in chaos, President Andrew Johnson sent Oliver Hudson Kelley, a Central West farmer — but then working in Washington — to visit the southern states, with the hope that he would come back with suggestions or a plan that would enable the President to solve some of the South's difficulties.

Instead of recommending measures that the President and the government might take, Kelley founded, in 1867, a self-help organization which he called the Grange, often called the Patrons of Husbandry. It was Kelley's thought that the Grange could do much to unite the people of the South and help them to educate themselves in the principles of scientific agriculture.

Strange to say, the idea did not take hold very well in the South, but it was taken up by rural people of the North and the Central West, and has been going strong for rural people ever since.

Space will not permit any extensive history of the Grange here. As its members know, it is a secret organization composed of subordinate Granges in the different localities which are united in the Pomona or County Granges, and, in turn, joined in the State and National Grange.

Splendid Record

The Grange has a splendid record of achievement for rural people and for the nation. In cooperation with others, it did pioneer work in helping to establish the Rural Free Delivery, the Parcel Post, and good roads. The Grange supported the founding and maintaining of agricultural colleges and experiment stations. Its support of the Women Suffrage movement was natural, for the Grange was the first large organization to receive women as members on an equal basis with men — as they should be.

Other Grange achievements include the support of Postal Savings Banks and the continuing fight against the liquor traffic.

Equally effective as that on the national level is the work of the State, Pomona, and subordinate Granges, which have had powerful influence on state and local legislation.

There are approximately 800,000 Grangers in the United States. I am very proud indeed to be one of that number.

REAL, EVER-LIVING PHILOSOPHY

I don't know who wrote the following, but I think it contains more sense than nonsense, so here it is:

To stay young and keep strong:

1. Avoid fried foods which angry up the blood.
2. If your stomach disputes you, lie down and pacify it with cool thoughts.
3. Keep the juices flowing by janglin' around gently as you move.
4. Go very light on the vices such as carryin' on in society — the social ramble ain't restful.
5. When you walk — walk slow.
 When you set — set loose.
 When you worry — go to sleep.
 Avoid running at all times.
6. Don't ever look back — somethin' may be gaining on you.

ANOTHER THOUGHT AS THE YEARS GET ON:

"I ain't what I oughtta be and I ain't what I'm gonna be, but I ain't what I was." That's maturity.

— from Gene E. Bartlett

RUSES THAT BLOOM IN THE SPRING!

IT'S TIME again to warn against the itinerant salesmen who travel like gypsies, offering to do all kinds of home repair jobs for unsuspecting farmers and homeowners. These travelers offer most any service, including lightning rod installation, spray painting, driveway paving, roofing and siding. Or they may offer to repair your chimney, clean your furnace and flues, or waterproof your basement walls. These people move in seasonally, collect as much money as they can, and move on.

Here are a few suggestions, applying not only to these "gypsy" outfits but to all itinerant salesmen:

Ask For Credentials

First of all, ask for credentials. Make sure that anyone claiming to be an inspector from a utility company, insurance company, or the Fire Department identifies himself. If you are suspicious, call his office to make sure. Remember, reputable companies and their representatives have no objection to your checking on them. In fact, in fairness to the honest salesmen, you should ask for credentials.

Then, don't be rushed. Take time to talk it over and think it over.

Compare Prices

The best thing to do before making any costly purchase or improvement is to get more than one price. Then, compare quality and prices. Keep in mind in comparing prices that, unless certain definite specifications are followed as to quality of materials used and method of application or installation, it is difficult to compare. Naturally, a company using lower-cost materials can offer you a lower price. It is your privilege to make the choice. Be sure, however, that you are dealing with a reputable concern — someone you trust.

There are numerous sources of information concerning reliability of individuals or firms. One is your local banker or Chamber of Commerce. They are often aware of any itinerant groups that may be working in the area. Many industries have their own trade associations and, if you have any doubts, you should check with them.

If you are approached by lightning rod salesmen, ask if they guarantee an Underwriters Approved system, and if they are members of the U.L.P.A. You can check this by writing the United Lightning Protection Association, Box 462, Ithaca, New York. It is very important that you have a contract stating that your system will be Underwriters Approved.

Aluminum Siding

If you are unable to get information about an aluminum siding company, you can write the Aluminum Siding Association, 2217 Tribune Tower, Chicago 11, Illinois. They have helped promote and set up trade practice rules for their industry.

If you are uncertain as to the quality of a particular kind of asphalt roofing, this bureau could help you: Asphalt Roofing Industry Bureau, 50 East 42nd Street, New York 17, New York.

Concerning fire extinguishers and fire alarm systems, be sure they are approved by the Underwriters Laboratories or National Board of Fire Underwriters. If you are considering an alarm system, you should get estimates or advice from local electrical contractors.

Similarly, your local building material dealers can advise you regarding building materials. Do not be misled by "referral" selling methods, whereby the agent promises you a commission if your home is used as a sample. These commissions seldom materialize.

Before hiring a stranger to clean your septic tank, check on the going price for this job in your area.

Spray painting can be expensive as well as dangerous when done by these itinerants who sometimes use a kerosene mixture which soon washes away. For any painting jobs you have, it is best you insist on a brand of paint you know — applied by a painter you trust.

Your American Agriculturist Service Bureau is always glad to answer inquiries, to tell you of any complaints we have had, or to refer you to someone who may have the answer.

Check Fine Print

After you have decided from whom to buy, sign a contract completely covering the transaction and cost, with no blank spaces, and no verbal promises. Read it carefully to make sure it protects you fully — and get a copy for yourself. Once you sign the contract, misunderstanding will not excuse you from paying. Do not sign a completion certificate until the job is done satisfactorily.

In summary, if anyone calls on you offering home repairs,

1. Ask for credentials.
2. Don't be rushed.
3. Compare prices.
4. Check reliability.
5. Sign a contract which you thoroughly understand and which fully protects you.
6. Do not sign completion certificate until the job is completed to your satisfaction.

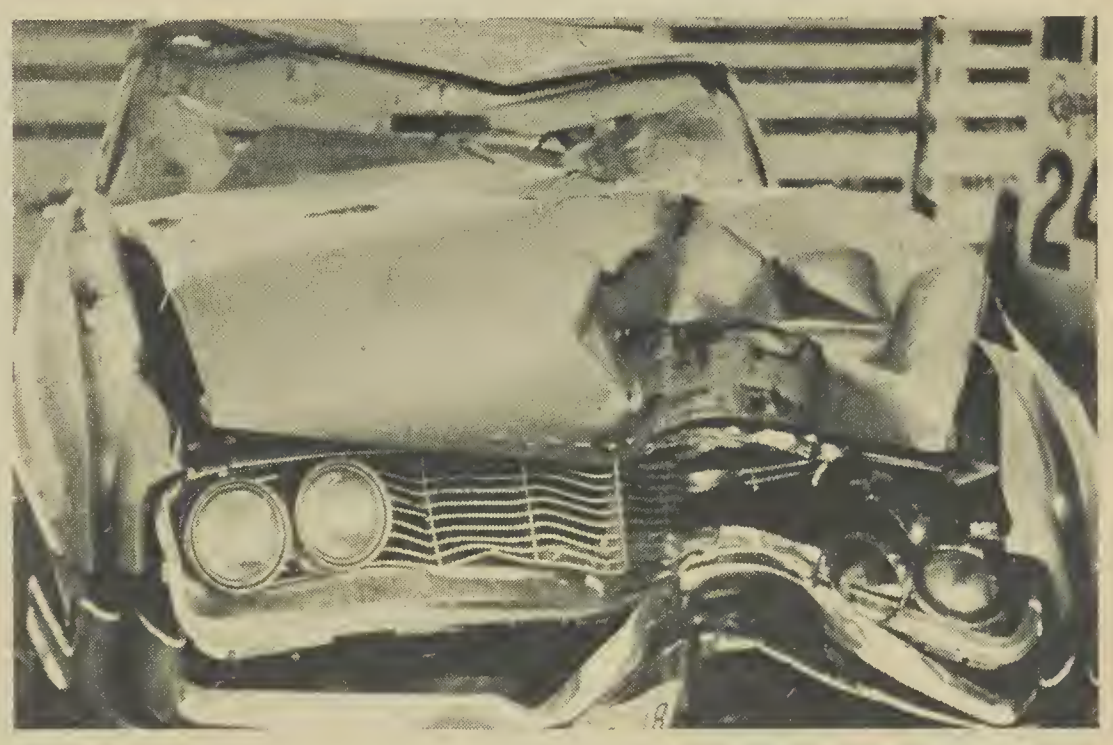
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IMPORTANT!

If you are approached by anyone selling used irrigation sprinklers and risers, please contact your police department or American Agriculturist. Within the past two months many of these units have been stolen from farms in the Calverton, Long Island, area — 114 from one farm! Their replacement cost is $10.75 each.

* * * * * * * * * * *

Prominent Farmer Survives Accident



Mr. Bertrand Rottkamp, R.D. Freehold, N.J. spent seventeen days in the hospital and weeks at home recovering from a fractured skull, broken ankle and severely cut knee. He was injured in the above car. Local agent, George Ellingham, right, delivered $1,730.00 to Mr. Rottkamp.

Three policies paid:

Medical expense benefits	$1230.00
Weekly income benefits	500.00
TOTAL	$1730.00



OTHER BENEFITS PAID

Raymond L. Weigle, Houghton, N.Y. — Slipped—twisted leg—injured knee	$ 539.46	Franklyn Garrison, Middletown, N.Y. — Auto acc.—injured neck & shoulder	267.91
Lillian Mahnken, Oeposit, N.Y. — Cow swished tail—injured eye	108.56	Bryan Snyder, Albion, N.Y. — Hit by bale of hay—injured shoulder	100.00
Harold Hunsaker, Randolph, N.Y. — Fell—injured shoulder & back	184.28	Loren Corey, Phoenix, N.Y. — Auto acc.—severe injury to elbow	400.71
Oale Stoner, King Ferry, N.Y. — Saw jumped back—lost finger & thumb	1420.00	Lena M. Miller, Burlington Flats, N.Y. — Kicked by cow—injured knee	250.00
Charles Peterson, Jamestown, N.Y. — Thrown from combine—fractured ankle	507.70	Raymond Nicol, Hammond, N.Y. — Crushed by cow—fractured leg	217.86
Fritz Janowsky, Wellsburg, N.Y. — Putting siding on house—injured back	200.00	C. Clayton Willard, Ogdensburg, N.Y. — Fell— injured knee & leg	281.83
Bertha Bushnell, S. New Berlin, N.Y. — Fell—broke arm	245.15	Catherine Lape, Cobleskill, N.Y — Jammed knee between car & garage door	657.71
Ralph J. Kirk, Cadyville, N.Y. — Kicked by horse—injured leg	103.57	Ida Heinonen, Interlaken, N.Y. — Fell on steps—injured shoulder	120.00
Clinton Cotterill, Oryden, N.Y. — Kicked by cow—low back injury	383.58	Minnie M. Hughes, Bath, N.Y. — Kicked by cow—injured back	649.51
Gladys Rosa, Oelhi, N.Y. — Slipped & fell—injured knee	717.64	Bessie Whitmore, Callicoon, N.Y. — Fell—broke ankle	167.86
Charles Richmond, North Collins, N.Y. — Auto acc.—injured thigh, chest, rib	206.43	Paul Friedrichsen, Nichols, N.Y. — Fell—injured head & leg	385.60
Clyde Woods, Crown Point, N.Y. — Cut with chain saw—injured leg	309.42	Cathleen Walpole, Groton, N.Y. — Fell on stairs—broke wrist, cut head	272.77
Herman Hensel, Batavia, N.Y. — Cow fell on insured—fractured leg	680.90	James L. Nolan, Eagle Bridge, N.Y. — Loading heifer—fractured rib	128.57
Bruce Applegate, Ilion, N.Y. — Fell down embankment—injured back	588.84	George Hall, Walworth, N.Y. — Kicked by cow—broke ankle	253.57
Russell Hunkins, Carthage, N.Y. — Crushed by cow—fractured arm	565.70	Warren Howell, Dundee, N.Y. — Stepped in hole—injured knee	650.16
Leon S. Wenk, Evans Mills, N.Y. — Slipped & fell—injured knee	1008.76	Frank Briggs, Bear Lake, Pa. — Fell—concussion—cuts & bruises	155.65
Abe Vollertsen, Glenfield, N.Y. — Slipped laying chimney—injured back	1280.00	Eleanor B. Prutsman, Millerton, Pa. — Kicked by cow—broke bone in face, rib	139.36
Evelyn Wing, Caledonia, N.Y. — Auto acc.—broke hand, cut eyebrow	146.86	Morris Mead, Genesee, Pa. — Fell loading milk can— internal injuries	754.40
Maude Raymore, Canastota, N.Y. — Auto acc.—broke collarbone	393.93	Joseph Spencer, Springville, Pa. — Thrown from wagon—broke ribs	102.86
Arthur Waterson, Hamlin, N.Y. — Fell 20 feet—multiple fractures	1320.00	Robert Murray, Columbia Cr. Rds., Pa. — Kicked by cow—dislocated hip	696.00
Elaine R. Hacker, Rush, N.Y. — Auto acc.—injured neck, bruises	100.00	Herbert Morris, Augusta, N.J. — Auto acc.—injured shoulder	200.00
Katherine Brownell, Ft. Plain, N.Y. — Gored by cow—internal injuries	526.20	Donald Schanzlen, Washington, N.J. — Kicked by horse—injured kidney & chest	603.18
Timothy J. Staple, Rome, N.Y. — Thrown from tractor—injured neck	275.00	Jean Mackay, Vineland, N.J. — Auto acc.—broke arm	551.43
Fred Blum, LaFayette, N.Y. — Gored by bull—injured leg	164.28	Clifford Reinhardt, Cranbury, N.J. — Truck acc.—whiplash of spine	433.00
James Stanton, Holcomb, N.Y. — Crushed by cows—severe leg injury	962.53		

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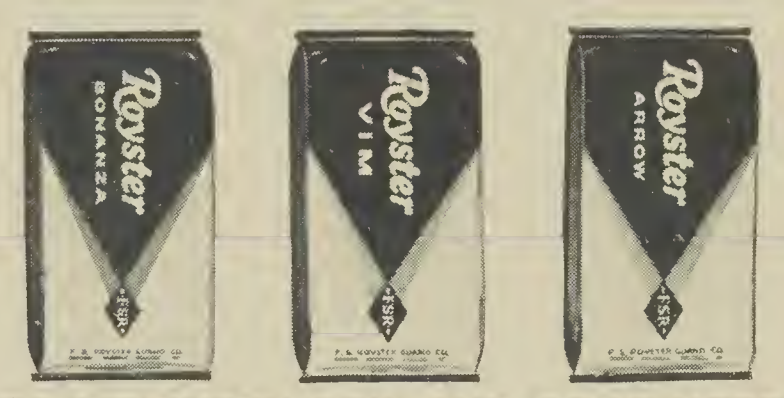


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MAY 1964

American Agriculturist





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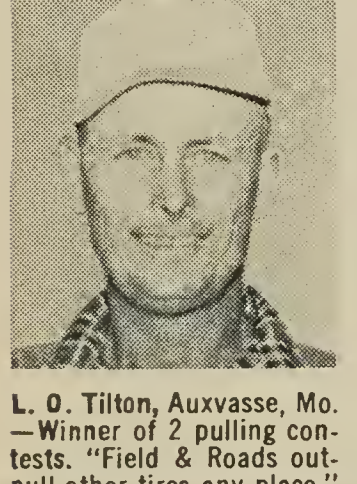
And new Sup-R-Tuf rubber gives you longer wear on the road . . . in the field.

Superior traction—longer wear . . . *both at big dollar savings!* This is what farmers all over the country report about Firestone Field & Road tractor tires. And now they're built with *Sup-R-Tuf*†, Firestone's new miracle rubber, for even longer wear both on and off the road. Only Firestone's Field & Road offers you these exclusive features:

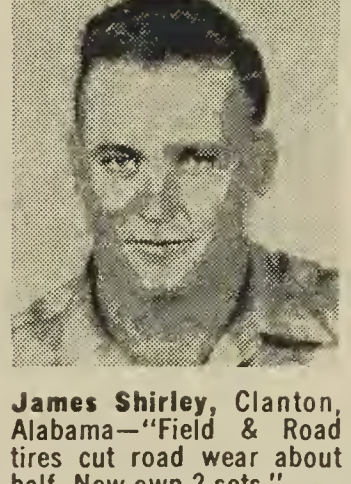
- 23° angle traction bar made with *Sup-R-Tuf* rubber stabilizes tread, ends excessive road wear;
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- New tread design insures shoulder-to-shoulder contact, traction bars take hold and *pull* on any surface.

Field & Road tires are available in sizes up to 18.4/15-34 . . . and they're *traction guaranteed*—in writing. Details? See your nearby Firestone Dealer or Store.

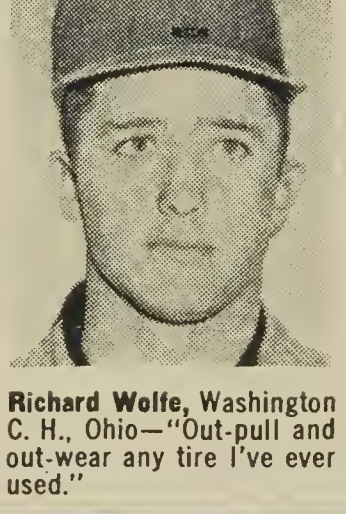
*Per single replacement tire. †Sup-R-Tuf, Firestone T. M.



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James Shirley, Clanton, Alabama—"Field & Road tires cut road wear about half. Now own 2 sets."



Richard Wolfe, Washington C. H., Ohio—"Out-pull and out-wear any tire I've ever used."

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If, within 60 days of the date of purchase, the new Field & Road tire does not outpull any other replacement rear tractor tire you've ever bought, your Firestone Dealer or Store will (1) refund within 30 days thereafter the amount paid or (2) allow the amount paid in full credit on any other Firestone rear tractor tires. (This traction guarantee does not apply to special-purpose rear tractor tires used in rice and cane farming.) The new Firestone Field & Road Tractor tire is further guaranteed against defects in workmanship and materials for the life of the original tread. This guarantee provides for replacement of the same size and type of tire pro-rated on tread bar wear and based on Firestone prices current at time of adjustment.

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American Agriculturist

FOR THE NORTHEAST FARMER

Founded 1842 Volume 161 No. 5

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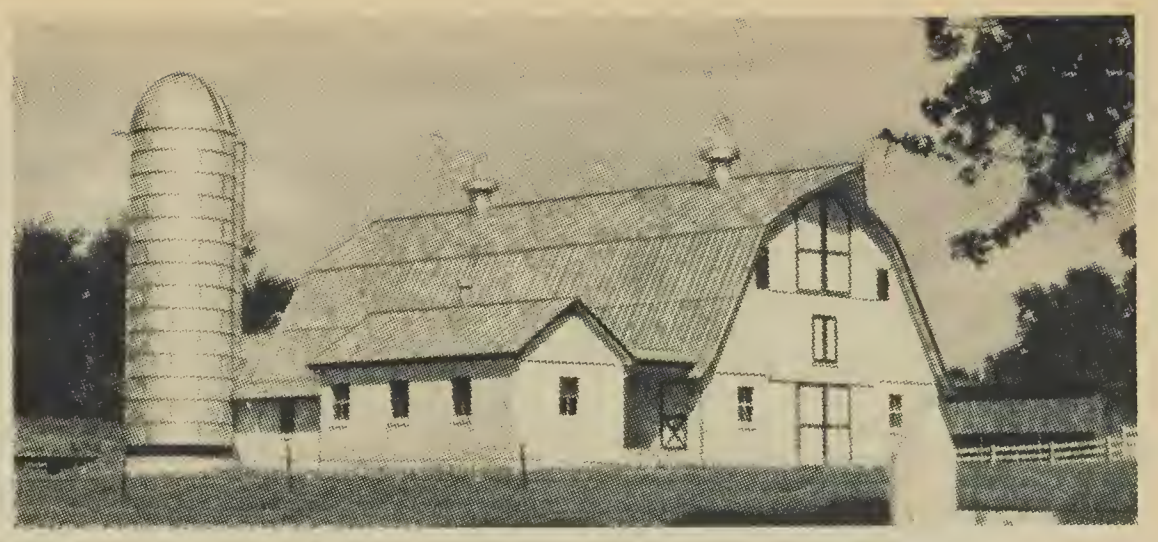
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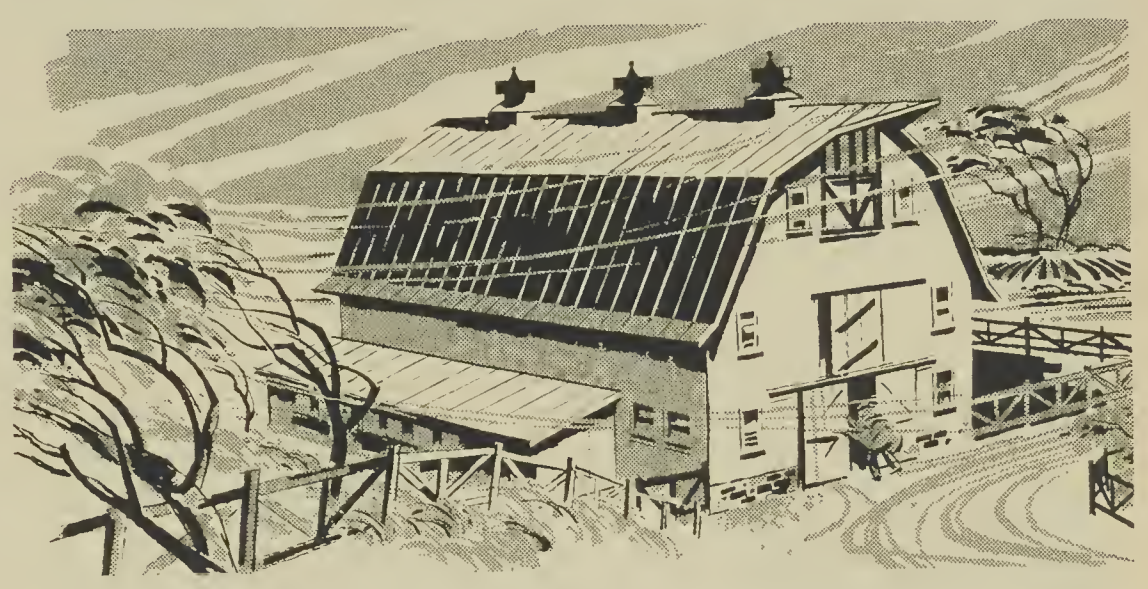
Sometime in May, most dairy cows in the Northeast "make it through to grass" and barn cleaning chores are much reduced. Grant Heilman shuttered this peaceful scene with his camera on the farm of Robert Yohn, Narvon, Pennsylvania. Suppose there are any fish in that water?



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EDITORIALS

by GORDON CONKLIN



NO "MOONLIGHTING?"

Since most farms have seasonal peaks in workload, many farmers hire seasonal help. Some hire men who also have full-time jobs in "the shop;" these men do farm work after hours, on weekends, or during vacations. It usually means good quality help for the farmer, and extra spending money plus an enjoyable change for the person hired.

Some folks, though, have taken a gander at unemployment statistics and conclude that "moonlighting," as holding two jobs is called, should be forbidden in order to "spread the work around." It is puzzling that so much of human nature and economics escapes the notice of the "anti-work" people.

We have already put quite an array of stumbling blocks in the path of full employment. The minimum wage cuts off the least capable in the working force because their services aren't worth even the mandated minimum wage. "Child labor laws," and employer liability experiences with accidental injury to young workers, make potential employers leary of hiring young people.

Unemployment insurance has sometimes offered more dollars per week to a worker than working. A high "overhead" cost per employee — retirement, fringe benefits, Social Security, etc. — makes it cheaper to pay present employees overtime than to hire new ones (on each of whom that "overhead" must also be paid).

Let's not further discourage those who want to work productively. Wealth is not money, but rather those things produced by working people to satisfy human wants. Time was when being willing to work long hours — whether on one job or two — was something to be admired and encouraged. I think it still is!

TAXES ON STATE LANDS

One of the things that needs doing in New York State is a thorough review of laws concerning payment by the State of local taxes on land it owns. Present laws are a hopelessly involved patchwork — requiring tax payments on lands acquired under certain land acquisition programs, and forbidding it on others.

When New York State buys a big chunk of land on which it pays no taxes in a particular township, the remaining taxpayers may be hard put to carry the load. It seems to me that it would be equitable to require the State to be assessed on its lands on the basis of assessments of adjoining lands. Uniform laws and procedures should be worked out to update and equalize this situation.

FERTILIZER FIGURES

With each passing year, I conclude more firmly that we humans don't listen to advice very gracefully, especially if it hasn't been asked for. All the same I sally forth periodically with some thoughts on things that seem to need saying.

Every farmer has the privilege of purchasing what he wants from wherever he chooses. However, it is logical that he buy the most economical item that meets his needs.

My college agronomists and county agent friends tell me that liquid complete fertilizer (not to be confused with solutions containing nitrogen only) is being widely sold in the Northeast for a price somewhere between $2.40 to $2.80 per gallon. A 10-20-10 solution is 40 percent plant nutrients (10 percent nitrogen plus 20 percent phosphorus plus 10 percent potash), which means that a gallon of material weighing 12 pounds contains 4.8 pounds of plant nutrients. Unless my long division is awry, this means each pound of plant nutrients costs 54 cents.

By contrast, a ton of dry 10-20-10 in bags, also containing 40 percent plant nutrients, costs $80 a ton. Forty percent of 2,000 pounds amounts to 800 pounds of plant nutrients and $80 divided by 800 gives a cost of 10 cents per pound of plant food — quite a difference!

College agronomists at Cornell University agree that liquid and dry complete fertilizers are equally effective for soil application. They further state that application of fertilizer intended to be absorbed through the leaves of field crops is not recommended.

My unasked-for advice is that anyone buying fertilizer — whether liquid or dry — compare prices on the basis of cost per pound of plant nutrient.

VOCATIONAL TRAINING

Raising questions about our school system is one of America's favorite indoor sports. One of the latest debates concerns how best to provide vocational training for those students who will not go beyond high school, or who might not even complete high school at all in the traditional academic curriculum.

Only one out of five boys reared on farms will become farmers; the rest will enter other professions and trades. For the boys who will not become farmers, the vocational agriculture curriculum is not designed to prepare them for getting jobs in industry. Yet, in most centralized schools this is the only vocational course offered.

Some districts already have a system whereby vocational trainees split their day between working for employers and attending classes. Many people are asking, though, whether this is adequate for the numbers of students who might want to be trained to go from high school graduation directly to a job demanding considerable skill.

POVERTY EXPLORED

I wonder whether the real crux of this question of "poverty" has been sufficiently explored. Are individuals equal in ability and willingness to work? If they are, then a case can be made for equal sharing of wealth because inequalities in economic status would be a matter of chance opportunity rather than personal accomplishment.

On the other hand, if people are not all alike in their innate and developed ability, or if they differ in their willingness to expend effort, then it can be argued that they should receive according to their contribution to the total good. We gibe at the communists for their belief in the principle of "from each according to his ability, to each according to his need." Yet we move steadily toward greater application of this very principle in our own United States.

Watching my own children, studying history, observing my fellow man, and attempting to be honest about myself — all these things lead me to the conclusion that man must have incentives imposed from outside himself if he is to develop to the fullest. The possibility of moving from the "bottom 10 percent" to the "top 10 percent" in economic status is a great motivating force that sends people to college, makes them sacrifice present pleasure for future gain, and spurs individuals to develop abilities that have in turn brought untold material blessings to our time.

Some believe that the way to cure poverty is to equate everyone by pulling the top levels down and the bottom levels up so everyone is at one spot on the economic totem pole. Everyone can then be "poor" or "rich" together, without recognition of who is productive and who is not.

But past history, and present experience (even in the Soviet Union), show that a system of free enterprise moves the entire scale of income groups upward. The "lower 10 percent" in this system, because of the overall creativity spurred by economic incentives, may well have a higher standard of living than the "average" person in a monolithic economic system where everyone is in lock step with everyone else.

What would be the point to a track meet where everyone was tied together so each man would finish at the same time? Who has a herd of cows where production — and grain fed in relation to production — is identical for each individual? Who would do his best if he knew everyone receives the same whether he delivers or not?

Who wants to fire off a letter to the editor on the subject? Each one will be read!

TROUBLE FOR BEEF?

After some banner prices between 1957 and 1962, beef returns have sagged lately, and livestock men are pressing for reduced beef imports; a few are even asking for a government price support program. Good prices over a period of years pushed beef cow numbers up from 24 million in 1958 to nearly 32 million now.

There have been some fundamental changes going on in the cattle business, one of the most important of which is the increasing number of commercial feeders with large fixed investments in feed lots and accompanying equipment. After a feeder pours a big chunk of cash into silos, paved areas, feed mills, materials handling automation, etc., he hates to see a square inch of the feed lot empty.

Broiler growers did a similar thing, and, especially where integrated with feed companies or processors, pushed for volume even when prices fell out of bed. Let's hope the beef industry won't go through a similar thing!

Concerning beef imports, Australia claims that 60 percent of its boneless beef going to the United States goes directly to retailers for hamburger, 5 percent goes to restaurants for stews, and 35 percent ends up in frankfurters and other processed meats. The USDA claims that only 50 cents of the $3.70 drop in beef prices from a year earlier is caused by imports, the rest because of expanded beef production, and competition from poultry and pork. Even though 1.5 billion pounds of manufacturing-type beef was imported into the United States in 1963, total supply in this country (imported plus U.S.-produced) was 500 million pounds *less* than in 1955.

Let's not push the panic button and paint ourselves into a corner just because a cloud is passing over. Beef cattlemen have fared even better than the producers of some heavily-regulated commodities in the past few years — partly because cattlemen had flexibility in their operations. A stanchion in a warm barn looks good to a dogie on a cold night, but sometimes shivering for a short spell beats staying in the stanchion even after it warms up!

American Agriculturist, May, 1964

New York CHECKERBOARD NEWS©

...From the Purina Service Centers serving New York farmers

BREAKTHROUGH AT THE PURINA FARM

INCREASED CASH INCOME FROM POULTRY 3 WAYS



START
$6 to $10 saved
per 1,000 chicks



GROW
$20 to $40 saved
per 1,000 pullets



LAY
11 more cases yearly
per 1,000 hens



PAY
$137 extra income
per 1,000 birds

Just released and now at your Purina Service Center . . . Purina's new Least-Cost Performance Chows will help thousands of poultrymen make more cash income.

The figures you see below the pictures are average savings made at the Purina Farm in cost comparison studies.

Cost of growing chicks and pullets was reduced by a 15% decrease in feed consumption.

Cash income from hens was *increased* by stepping up egg production an average of 11 cases per 1,000 birds yearly . . . with no increase in feed usage. With eggs figured at 30¢ a dozen, this made an increase of $99 cash income per 1,000 birds.

The improvements in Purina Chows are based on a whole series of feeding tests to re-value different nutrients in the rations. With this improved fund of knowledge, Purina scientists use electronic computers to search out the formulas which make the "least-cost performance" for Purina Chows at current ingredient prices. Check the savings with your Purina Service Center.

While sample supply lasts, there's a

FREE PURINA FLY CHECKER

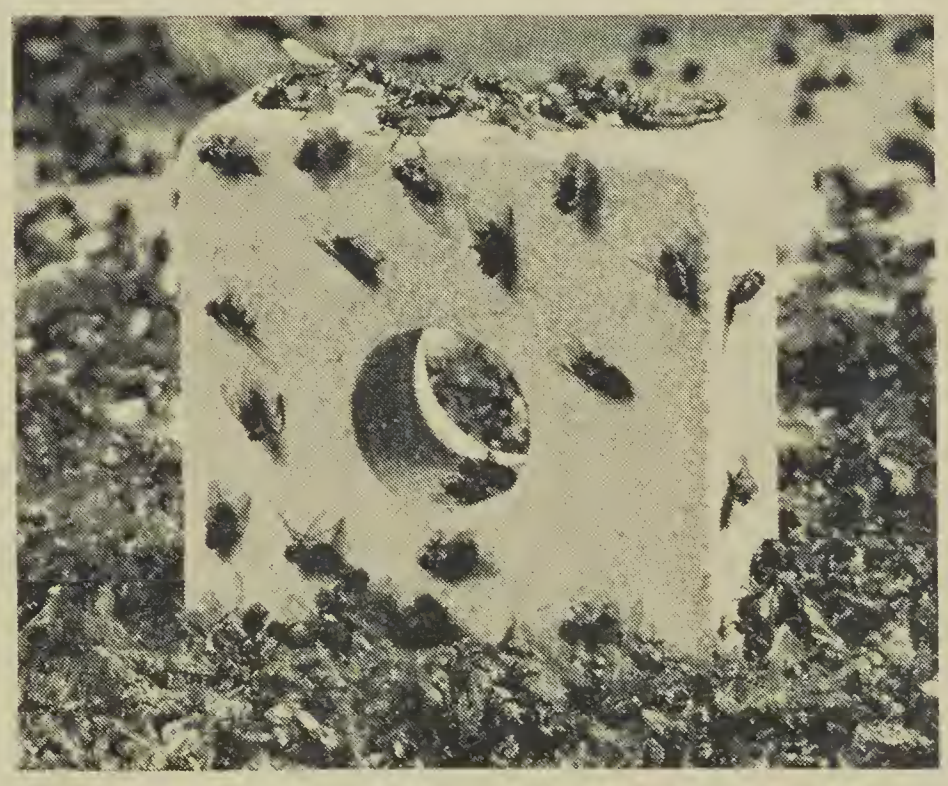
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The Purina Fly Checker really kills like magic! Once you've seen it work, you'll want to order a supply for your barns, feedlots—anyplace flies like to feed.

Special attractants in Fly Checkers draw flies in bunches. Then, two powerful fly killers—D.D.V.P. and Dipterex*—knock 'em dead in minutes.

Hurry to your Purina Service Center to get a free Purina Fly Checker while the sample supply lasts. Look over the big line of Purina fly baits and sprays designed to give you complete fly control. Use proved Purina fly killers to rid your livestock and poultry of disease carrying, bothersome flies. They're priced right and they do the job.

**Reg. U. S. Pat. Off. by Farbenfabriken Bayer, A. G., Chemagro Corp. Licensee.*



LOW COST PRODUCTION...the reason why more farmers feed PURINA®



Look what happens to a distributor cap when the wires are not pushed all the way into the towers!

Sparkin' Troubles

Here is why an engine misfires . . . and what to do about it.

By R. J. Gail*

Anyone who's spent much time around a farm knows a tractor engine can cause a lot of problems when it isn't running right — poor fuel economy, loss of horsepower, and more time required to work fewer acres.

When an engine acts up, you'll probably blame the spark plugs. Many times the plugs are at fault because they're either worn out or in need of service. However, when misfiring occurs with relatively new spark plugs something elsewhere in the ignition, fuel or cooling system is causing the difficulty. Unfortunately, since trouble in these areas almost always shows up at the spark plugs, it often is mistakenly diagnosed as spark plug trouble. How many times have you removed a fouled plug and simply installed a new one without checking to see what caused the fouling?

The spark plugs are only the last link in a long chain of events which must occur within the engine to produce a spark in the combustion chamber. Should something happen anywhere in this "chain" — a weak coil, bad condenser, worn breaker points — the spark plugs are apt to misfire, even though there is nothing basically wrong with them.

Operating with too cold an engine temperature can also cause spark plugs to misfire. This is a common occurrence in tractor engines because of their large cooling capacity, coupled with the fact that many farmers fail to close radiator shutters or install a winter thermostat for cool weather operation. This causes incomplete burning of the fuel which, in turn, leads to misfiring due to the accumulation of carbon deposits on the spark plug insulators.

Closer Look

Let's take a closer look at some of the causes of misfiring, keeping in mind one important fact — electricity is lazy and will always follow the path of least resistance through the ignition system.

Assume, for example, that a new ignition system at 2,000 rpm can furnish up to 20,000 volts to the spark plugs. Suddenly, a crack develops in the distributor cap so that only 11,000 volts are needed to short to ground at the crack. Until the cap is replaced, total ignition system output never will exceed 11,000 volts.

Now, the spark plugs in this particular ignition system need 10,000 to 11,000 volts to fire. If the tractor is operated for long with the cracked distributor cap, the plugs probably will misfire as soon as the electrodes have worn, because the voltage required to fire them gradually will exceed coil output.

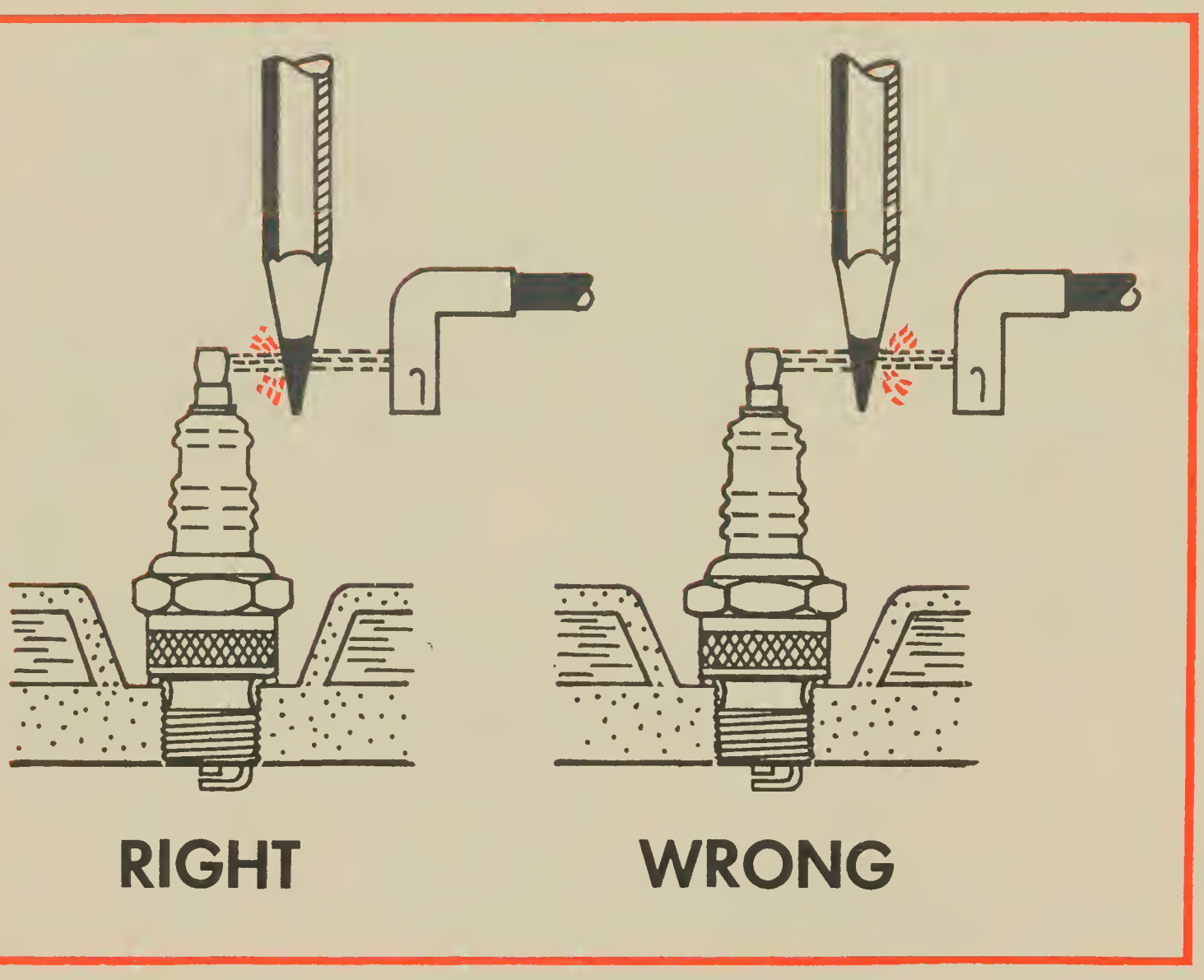
These same kinds of short circuits can develop anywhere in the ignition system — in the distributor cap, ignition cables, even on the spark plugs themselves. Wherever they exist, the result is the same — coil output is drained away and the amount of voltage available to fire the plugs is sharply reduced.

Corroded or eroded contacts in either the distributor cap or on the spark plug cables (resulting when leads are not pushed in all the way), also can create high resistance and reduce voltage available to the spark plugs. If the corrosion is not too bad, the contacts can be cleaned with a wire brush or a piece of steel wool. But in cases where the metal is eaten away, it will be necessary to install a new cap to correct this condition.

Another spot in the cap which sometimes causes trouble is the small carbon center contact button. Excessive wear of the button may create a gap between it and the metal contact finger on the rotor, which eventually may result in severe arcing and corrosion around the contact surface of the spring. The resulting high resistance set up by the corrosion may actually prevent high voltage from reaching the spark plugs — especially if the inside of the distributor cap is contaminated with highly conductive carbon dust and other impurities (oil, grease, etc.). If resistance is high enough to "block" the electrical path to the spark plugs, the high voltage will seek an easier path and may "track" across the inside of the cap to the wrong insert or to ground. In addition to causing misfiring or complete ignition failure, this condition can actually cause cylinders to fire out of order.

In many cases, misfiring can be traced directly to the distributor itself. Improperly adjusted points or a faulty condenser, for example, can reduce the voltage available to fire the spark plugs. However, unless you know what you're doing, better leave most of the distributor work to your mechanic. It's impossible to check such things as dwell angle, distributor cam lobe wear, or other parts in the distributor without proper equipment.

You can, however, install a condenser and



If spark flares on spark plug side of pencil, polarity is correct.



Electricity going where it isn't supposed to has left a track across this spark plug — caused by dirt and grease inside the rubber boot

a set of points if you have a feeler gauge to set gap spacing correctly. Remember, though, that the engine really should be retimed after points are installed, since point spacing has a direct effect on spark timing.

When installing points make sure the contacts are properly aligned after installation and that the rubbing block makes contact all the way across the cam. Otherwise, the block may touch the cam at only one corner, causing rapid rubbing block wear, which may eventually result in the points closing too soon.

Also, be sure to clean the contact surfaces thoroughly with a small piece of lint-free cloth and some ether after the points are installed. This will eliminate any possibility of contaminating them with your fingers (point contamination is one of the major causes of point failure).

And don't forget to lubricate the distributor cam lobes with a thin layer of the proper grade cam lubricant. **Do not use a lubricant which will melt out at high temperature.** It will contaminate the points!

Coil Hookup

Accidentally reversing the primary leads on the ignition coil will cause the engine to misfire under load. Referred to as "reversed polarity," this condition actually can "up" voltage requirements at the spark plug by as much as 45 percent. And, because tractor engines are operated under load, reversed polarity is even more likely to cause trouble than would be the case in your automobile.

In most cases where polarity is reversed, the engine will still run okay — as long as the spark plugs are in good shape and require relatively low amounts of voltage. However, when voltage requirements have increased due to normal electrode wear, the engine will begin to misfire under load.

Polarity refers to the direction of high-tension current flow, which always should be negative at the spark plug center electrode. You can easily determine whether the plugs in your tractor are getting negative voltage by using a common wood pencil. Don't try this test with a metal pencil or you'll be picking yourself up off the floor!

Simply remove a spark plug cable while the engine is running and insert the graphite tip of the pencil between the spark plug and the cable. Then, note the direction in which the spark flares or takes on an orange tinge as it jumps between the cable and plug. If it flares on the spark plug side of the pencil, polarity is correct. If on the cable side, polarity is reversed. In this case, simply reverse the coil's primary leads.

Sometimes you can spot reversed polarity by looking closely at the electrodes of a worn spark plug. With polarity reversed, metal particles will be torn off the side electrode during sparking rather than the center electrode. This usually results in the formation of a "dish" on the side electrode. Of course, sometimes heat and chemical attack may be so severe they tend to cover up this effect, but it's always there, and may provide a tipoff on the source of an elusive miss when the engine is under load.

Incidentally, there is no need to worry about reversed polarity on magneto ignition systems.

Check Boots

Misfiring also can be caused by dirty rubber spark plug boots which are used on many tractors. Frequently grease and dirt will accumulate on the inside of the boots and on the spark plug insulators — especially if the boots haven't been removed for some time. This may produce a condition called "flashover" where the high voltage, instead of traveling through the spark plug, "tracks" across the insulator to the metal shell. To prevent this, just remove the boots occasionally and wipe the spark plug insulators with a clean dry cloth.

To discover many of the "culprits" that cause spark plug misfiring, the plugs themselves can be a great help, since the conditions which caused misfiring can be spotted by examining the spark plugs' firing tips. For example, plugs having insulators full of black fluffy carbon deposits may mean over-rich carburetion, excessive choking, a dirty air filter, or trouble in the cooling system (operating temperatures below 160°F. should be avoided).

Carbon fouling also may be a result of poor ignition output; excessive idling; slow operating speeds under light load; or continual stop-and-go operation. If fouling is restricted to only one or two plugs, check for sticky valves or a defective spark plug cable and connection.

Plugs with wet oily deposits on the firing tips generally mean that too much oil is entering the cylinder. Worn cylinders and piston rings, or valve guide troubles are the usual causes here. And, while hotter plugs may temporarily reduce the oil fouling, engine overhaul probably will be required to regain really satisfactory performance.

When spark plugs have been overheated their insulators will be dead white or gray, and badly blistered. Electrode gap wear will be excessive. Although overheating may suggest a need for plugs of a slightly cooler heat range, the most common causes are over-advanced timing, a slipping fan belt, excessive combustion chamber deposits, and cooling system stoppage. If only a few plugs are overheated, check the intake manifold for leaks.

Selecting Plugs

When selecting plugs, you should generally stick with the manufacturer's recommendations regarding heat range. However, in cases where engines idle for long periods of time, or operate under light load, you may encounter fouling due to oil and carbon deposits when using plugs of the specified heat range. If this happens, try using plugs of a slightly hotter heat range, or even plugs with an auxiliary gap.

Auxiliary gap plugs have a built-in gap between the center electrode and the terminal stud. This gap isolates coil output from the spark plug's firing and while the coil builds up high voltage. Then, when the gap breaks down, the high voltage suddenly jumps across it and a full voltage "hot spark" is delivered to the firing end of the spark plug.

When regular plugs are subjected to fouling conditions, the oil and carbon deposits may bleed away the high voltage almost as fast as the coil builds it up. As a result, a spark can't form at the electrodes when these deposits become too thick.

In addition to those discussed here, there are other conditions that affect engine performance. Just as the distributor, coil and spark plugs are important in making a hot spark, so are the battery, generator, voltage regulator, and generator. And, while you can't check their condition without special equipment, you can make sure all connections between them are clean and tight, which will cut down resistance in the electrical system and help maintain a flow of high-tension current to the spark plugs. Remember that dirt and corrosion around electrical connections act just like a kink in a garden hose. Just as the kink restricts water flow, so will the dirt and corrosion restrict current flow.

Such things as compression ratio, coil and condensor condition, distributor cam adjustment, and condition of the valves all have a lot to do with the way an engine performs. However, fixing these things requires lots of special equipment and plenty of know-how; most of them should be handled by a professional mechanic.

*Champion Spark Plug Company



Auxiliary gap plugs have a built-in gap between the center electrode and the terminal stud. They are used where engines have light loads.



Distributor cap should be removed frequently and wiped clean with a cloth.

ALLIS-CHALMERS - Land of Power

Great rain... great day!

Folks for miles around woke up in the night to the great sound of welcome rain drumming on the shingles, gurgling in the down-spouts. And smiled their thanks before drifting off again, thinking of the grateful crops out there in the thirsty soil. Of roots fine as hair reaching, stretching, drinking —stems inching upward—growing. Every raindrop whispering of money in the bank, come harvest.

Good morning for a drive into town. Rain stops, the sun breaks through and a rainbow starts shaping up. It seems half the county has the same idea today, everybody waving and smiling. The ladies have some shopping planned, but Dad and Jimmy just naturally gravitate to where the Big Orange Allis-Chalmers tractors are on show. "Won't hurt to look 'em over," Dad says. "Won't hurt a bit."

Man-talk. "Henry, you're ready for a D-21, biggest, best tractor we ever offered." "Well, I've been thinking of a D-19 —five-six bottoms should do me." "Hey, look at Mrs. Myers on the D-17—handles it better'n Old Dave does!" Laughter. And somebody says, dead serious, "I've always maintained that any tractor with the name Allis-Chalmers on it is a good machine, D-10 on up." It's a great day!



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How To Cut Quite A Swath!

by Wes Thomas

Here's the latest on mower options available and how to get the most from this haying tool.



Regardless of whether a sickle bar mower is side-mounted, rear-mounted, or trailing, it must be properly maintained and adjusted if it is to perform satisfactorily.

THE BASIC principles of sickle bar mowers are little different from those of the earliest mowers a hundred years ago. Since the power now available in the average farm tractor is several times that required by the mower, adjustment requirements and service needs of the mower are often neglected because there is enough horsepower to "push it through."

However, whether you have one of the newer type pitmanless mowers, or one of the conventional pitman type, proper maintenance and adjustment are necessary if you are to cut a clean swath and avoid annoying, time-consuming delays.

Four Requirements

There are four basic requirements which must be met if a cutter bar mower is to work properly:

1. When in operation, the cutter bar must be at an exact 90 degree angle to the direction of travel.
2. Knife sections must be parallel to, and in close contact with, the ledger plates on the guards.
3. Points of the knife sections must be in register with the guards at each end of the stroke.
4. Knife speed must be in proper relation to the forward speed of the mower.

The exact details of making each adjustment vary among different makes and models, so check your owner's manual for specific directions. Start with shafts, bearings and frame parts; if these are in poor condition, a new mower may be the best answer. Otherwise, a few dollars for repairs and a little time can put the mower in good shape.

Cutting Mechanism

The cutting mechanism of all makes of sickle bar mowers is about the same, so minor repair jobs are about the same, too:

1. Look at the knife first; any broken or missing sections should be replaced. Check the other sections, too. If they have been sharpened until the front edge is pointed, better replace all the sections. If your dealer can lend you a small mower anvil block, you'll find the job a lot easier.

If the knife edges just need sharpening, you can do the job yourself. Keep the new cutting edges parallel to the original edges, and use care not to "burn" the sections during grinding.

2. Ledger plates need to be sharp, too. This repair is often neglected longer than it should be. Again, the mower anvil block can be a big help.

3. The cutter bar must have proper register. That is, the knife sections must be centered over the guards at each end of the cutter bar stroke. The position of the cutter bar is adjustable on some machines. On others, the adjustment is made by changing the length of the pitman.

4. Any damaged guards should be replaced; new guards should be lined up evenly. Any "out of line" guards can usually be hammered into place to give uniform contact between the knife and ledger plates all along the cutter bar.

Don't pound the upper lips of the guards down on the knife. They are intended to help straighten and hold the material to be cut.

5. Hold-down clips keep the knife against the ledger plates. They can usually be hammered down enough to hold firmly, but if the tip is worn too much for the clip to be pounded down properly, replace it.

6. The wearing plates provide a surface to carry the rear edge of the knife; replace if wear is excessive.

7. When you are mowing, the cutter bar should be square across the swath. So when the mower is at rest, the outer end of the cutter bar should be one to two inches ahead of the inner end. The cutter bar end will move back by about this amount when in operation.

Take a few feet of string and stretch it across the face of the pitman fly-wheel. Then extend it to the end of the cutter bar.

If the bar lacks proper "lead," take time to adjust. Usually, an eccentric bolt or bushing in one of the framework joints near the inner end of the bar does the job. Just rotate the eccentric bolt or bushing until proper lead is restored, and fasten tightly in place.

8. Check both the inner and outer shoes on the cutter bar. If soles are worn thin, new ones can be welded on easily.

9. If tractor ground speed is greater than 4-½ inches per knife stroke, the sickle will overrun the crop and tend to pull, rather than cut, the individual plant stems. On the other hand, if ground speed is less than 3 inches per stroke, some of the hay is cut twice, and plugging may result.

With a typical knife speed of 900 cycles (1800 strokes) per minute, a tractor speed of about 6 miles per hour is required for a forward travel of 3-½ inches per stroke.

If the tractor has only a small number of working gear ratios, there is usually one which is intended for use with the mower. Some mower manufacturers provide several size sheaves, so that the speed of the tractor and mower can be co-ordinated.

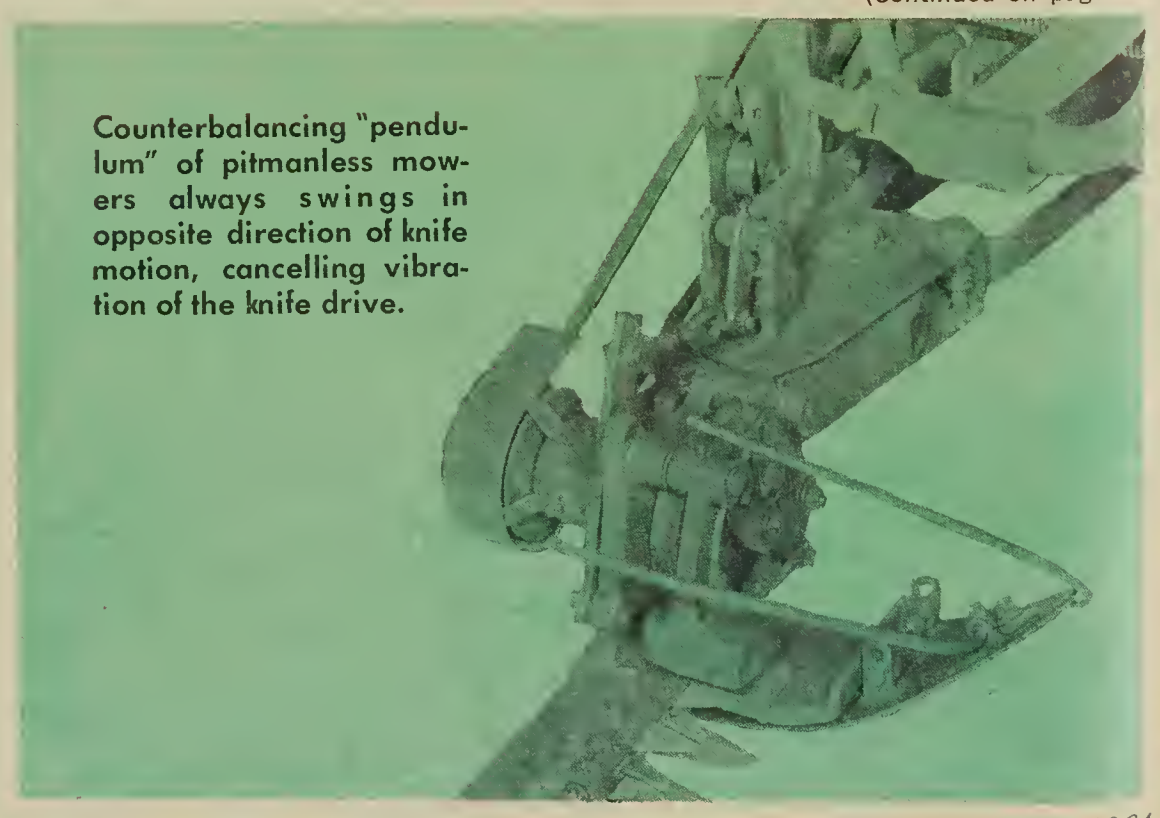
Pitmanless Drives

The necessity for back-and-forth motion required by the sickle is the basic cause of many mower difficulties. Vibration has always been a problem as a result of this reciprocating motion.

Several manufacturers now offer mowers which use some arrangement other than the traditional pitman and crank to produce the reciprocating motion. The exact details vary among the different makes, but essentially they all depend upon some sort of a counter-balancing arrangement which cancels out the shaking forces produced by the basic drive mechanism.

These types of drives are more costly than the conventional pitman and crank because of their increased complexity. However, the reduced vibration tends to permit higher speeds and reduces repair expenses. Thus, if you are

(Continued on page 17)



Counterbalancing "pendulum" of pitmanless mowers always swings in opposite direction of knife motion, cancelling vibration of the knife drive.

YOUR GLF CONSUMER PRODUCTS REPORT

NEW

GLF Emulsolin—an oil base paint, reducible with water...developed in your Unico Paint Plant. Read what it means to you!

NOW!

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GLF *Unico* Emulsolin is the paint that does the work of two for the price of one.

Like old favorite oil base paints, new Emulsolin is deeply penetrating. One coat over any repaintable or chalky surface dries to a durable, flat finish... without a primer. And it chalks slowly to give your work extra years of fresh appearance. But that's just half of the story.

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Because it is water-reducible, Emulsolin can be applied early in the morning and late in the afternoon without damage caused by dew. Your painting day is extended about 30 percent. If you want to paint right after a rain... go ahead—with Emulsolin.

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Without a doubt, Emulsolin is the new No. 1 house paint. And you can get it from an old friend—your GLF.
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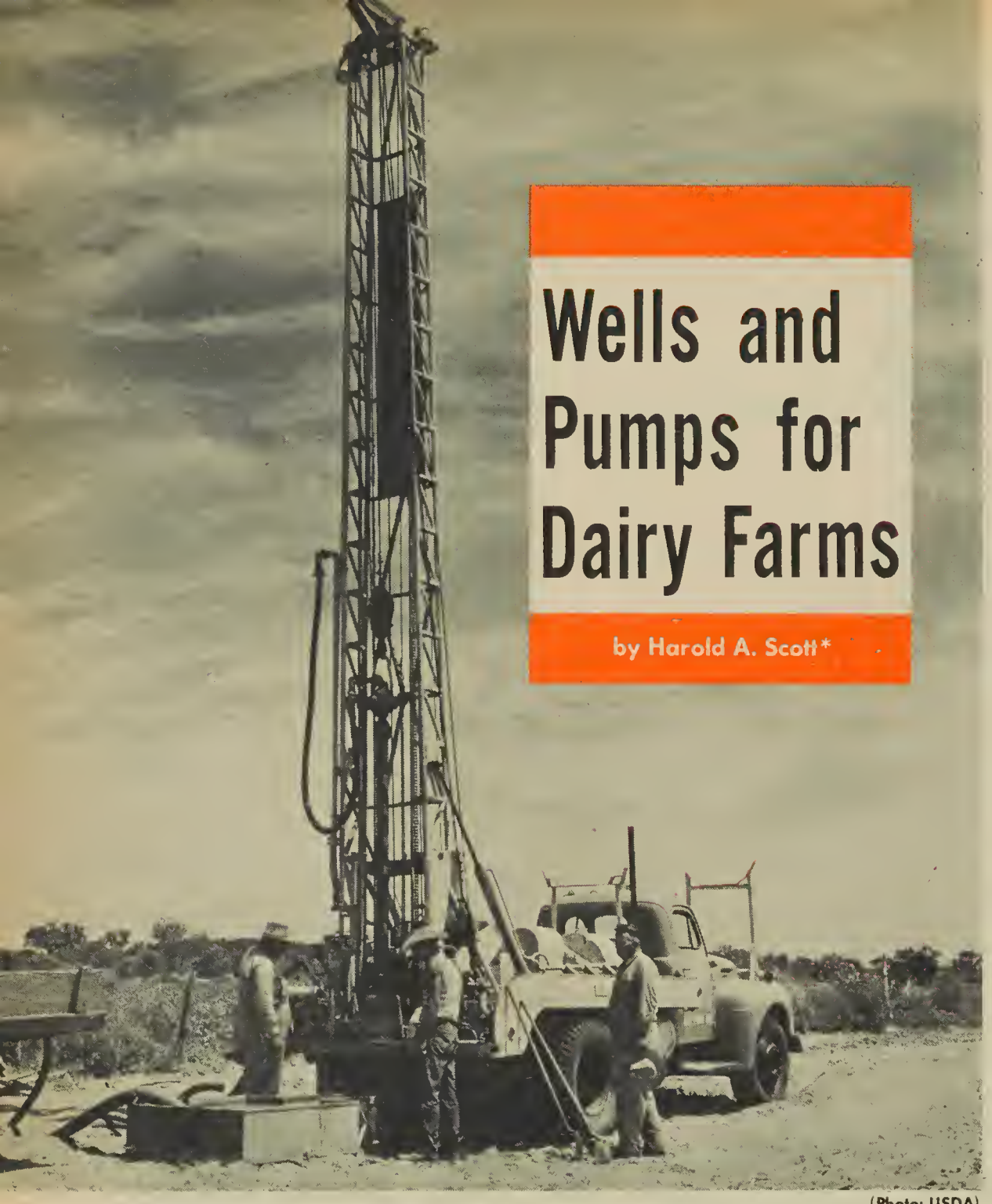
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Application on New Wood	✓		✓
Ease of Brushing		✓	✓
Consistent Good Leveling			✓
No Primer for Repaint	✓		✓
Blister Resistance		✓	✓
Excellent Tint Retention		✓	✓
Compatible with ZnO	✓		✓
Recoatable in 30-45 Minutes		✓	✓
Application to Damp Surface		✓	✓
Out of Water Damage in Short Time		✓	✓



Wells and Pumps for Dairy Farms

by Harold A. Scott*



(Photo: USDA)

EVERY TIME you turn on a faucet you are committing an act of faith: faith that the well driller has drilled or dug a well with adequate water for your needs; faith that the pump man has installed a pump large enough and trouble-free; faith that the water that comes from the faucet is fit for your child to drink, for cooking, washing dishes, dairy utensils, etc.; faith that there will be enough water; and faith that it will pass bacteriological tests.

When planning to modernize your old water system or to start from scratch with a new one, first check with your neighbors and friends as to whom they contracted to do their work. Find out whether they got the results they expected from the amount of money they spent. Check on the depth to which they drilled, the gallons per minute, what it cost, and the system installed. The chances are that your well will be approximately the same depth as your neighbors' and have the same flow characteristics.

Not Just a Hole

You shouldn't be interested in just getting a hole drilled in the ground. Your purpose is to get a good producing and sanitary well that will give you the water you need now and for future expansion. And before you begin planning, you'll have to know how much water you and your family and farm will need. Here's a summary:

50 gallons per day for each member of the family.

Add 25 gallons per day per member if extensive additional use is needed, such as a pool, underground sprinkling systems, or water appliances.

12 gallons per day for each horse, dry cow, or steer. Milking cows need 35 gallons per day.

Allow 4 gallons per day for each hog or 100 chickens; 2 gallons per day for each sheep.

Sounds like a lot of water. doesn't it — but then, most people don't realize the large amount they use each day. For example: one tub filling requires 30 gallons: a shower takes 30 to 60 gallons; the average automatic dishwasher uses 3 gallons per load and the clotheswasher 50 gallons per load; filling the lavatory sink averages 2 gallons; flushing the stool, 6 gallons. As for watering the lawn, a nozzle uses 200 to 300 gallons per hour; the sprinkler, 120 gallons per hour.

What Kind of Well?

Wells are dug, bored, driven or drilled. You should rely on the expert knowledge of your well contractor for the correct construction for your locality.

To avoid contamination, driven or drilled wells are normally preferred, and driven wells are the quickest and most economical. Drilled wells offer the best efficiency, volume, and purity.

You must also consider the diameter. Wells of small diameter are cheaper to drill, but more expensive to pump. Since pumping is the continuing cost, you will want your well to have a minimum diameter of at least six inches.

Your well driller will charge by the foot...remember, he can't be positive about the depth. He should give you a contract specifying the materials to be used, the manner of finishing, the diameter of the well — and the diameter and weight of casing. He should carry insurance to protect you against suit in case of accident or damage; and should leave the well in clean, sanitary condition.

How It's Done

If your well driller uses the new rotary machine, he should drill an 8-inch hole into the bedrock to a depth that he believes will give a proper seal between bedrock and overburden. He then sets 6-inch steel casing (this should be 20 pounds to the foot) and continues drilling a 6-inch hole in the bedrock until there is enough flow into the well for your needs.

After he — and you — are satisfied on the gallons per minute, he will blow the well with air until the water clears. A sample should be taken for analysis just before he stops blowing.

Driven wells can be 1¼ inches in diameter with a well point, or on up to 2½-inch pipe with screens set inside. Several wells of this type could be installed and piped into a common header and connected to a single pump.

There must be water-bearing sand or gravel for this type of well, and water should be within 25 feet of the surface so that a shallow well pump can be used. Deep well pumps can be installed on 2-inch and larger wells, but they are inefficient and have small capacity in wells with small diameters.

Many drillers still use the old-style spudders. Although they take longer to drill a well, they are still reliable, and basically do the same as rotary drillers.

Dug Wells

Last but not least is the old hand-dug well that most people are acquainted with. It is laid up with a dry wall of field stone, and usually located in a low spot on the farm, where it is susceptible to pollution from the barns or waste from the farm home. A recent survey of 57 wells in one town showed varying degrees of pollution in almost all of them.

Location is especially important with hand-dug wells. They should be located in a carefully-selected area, and the top should be sealed to prevent surface drainage from entering.

Types of Pumps

There are two basic types of pumps — deep or shallow well. (A water storage tank is usually used with either). If water is reached at 25 feet or less, you need a shallow well pump; greater depths require a deep well pump. The choice should be left to a competent pump man.

Convertible Pumps

Is your well too deep to be shallow, too shallow to be really deep? A convertible pump may be your answer. Convertibles are widely used in areas where a growing population may lower or deplete the supply of available shallow water.

Since they are installed above ground, conversion is easy. A simple adjustment (no parts to buy) permits a section of the pump to be removed and placed within any 6-inch diameter well. Presto — a deep well system!

Submersible Pumps

Newest member of the pump family, the submersible was developed for use in extra deep wells, and has also been used successfully in many wells less than 100 feet deep. Pump and motor are submerged deep within the well and actually push water to the surface. Not only can submersibles bring your water from greater depths, they can bring enough for swimming pools or irrigation as well as farm use.

Install a submersible and it's safe from frost and other surface hazards, needs no pump house or protection, and no priming — no oiling, either, because they are water-lubricated, and operation is noiseless.

Sump pumps must be included in some water systems. Basement laundries often need a sump to draw away excess water. And if your location is such that basement flooding may occur, a sump pump is vital.

Piping Facts

Piping is a vital part of every water system. On suction lines of shallow well pumps, pipe that is too small can be the cause of short pump life and repeated service calls.

Tremendous pressure isn't necessary to get large amounts of water through a pipe. Actually, if all you want is volume, the only pressure you need is enough to lift the water to the point of use, if the pipes are large enough.

For example: at a dairy barn you don't need high pressure at the drinking cups, only volume, so you should have a large-enough main feed line so that water can flow freely without friction loss. In the milkhouse you might want high pressure for hosing down the floors, etc., and this might call for a booster pump. To get high pressure means adding horsepower as well as a larger pump, and if high pressure is only needed at one or two outlets there is no need to have it at all points.

It might also be, if well conditions allow it, that you could get considerable fire protection with a properly-engineered well pump in conjunction with a booster pump.

New Gadgets

Among the new gadgets on the market today is the Medalist tank, with a plastic float separating water and air, thereby eliminating the absorption of air in the water and the need for an air control; air controls are a continuous source of trouble and expense. The Medalist tank is pre-charged with air at installation, and under normal use will not need re-charging for four or five years.

Another product is an underground discharge coupling for submersible pumps. This does away with the need for a pit at the well, and makes for a more sanitary connection.

*President, Scott Associates, Inc.
Clinton, Mass.

American Agriculturist, May, 1964

Priced right... Compare a John Deere Forage Harvester with "stripped down" machines — feature for feature

John Deere No. 6 and 12 Forage Harvesters are competitively priced. But it doesn't look that way when only basic prices are compared. A John Deere is higher . . . *but* it's equipped the way it should be.

John Deere Forage Harvesters are regularly equipped with a jackstand to make hitching and unhitching easier. A single tractor-seat control swings the spout 360 degrees and regulates the spout cap. Axle height is adjustable for better work in downed row crops. The heavy-duty, single V-belt drive works with any tractor or crop gathering unit. Put these worthwhile features on a stripped-down chopper — if it's possible to do so . . . and you're in the price range of a John Deere.

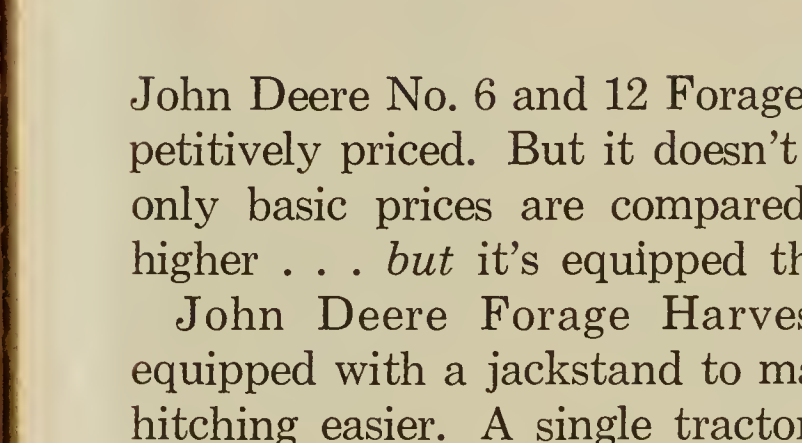
John Deere Forage Harvesters go on to give you bigger capacity, finer cutting, greater strength and dependability. See your dealer about one. Get the facts on price, too. Use the John Deere Credit Plan.

JOHN DEERE

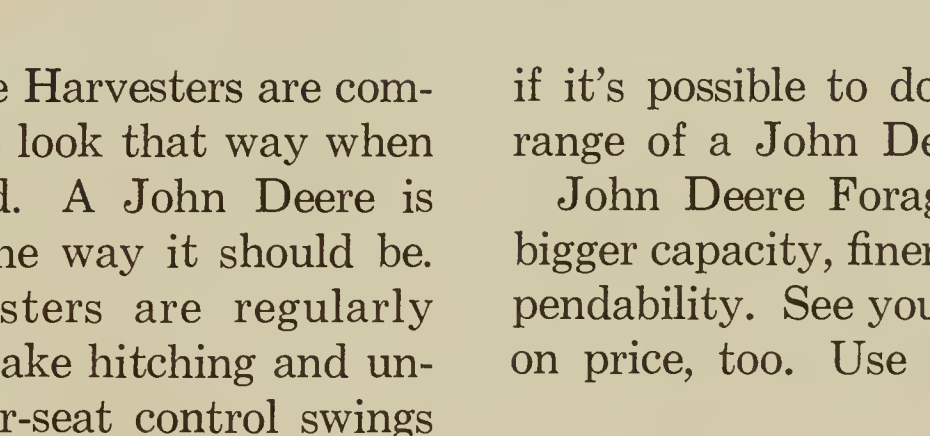
Department A, Moline, Illinois

Choose from The Long Green Line of John Deere Forage Equipment

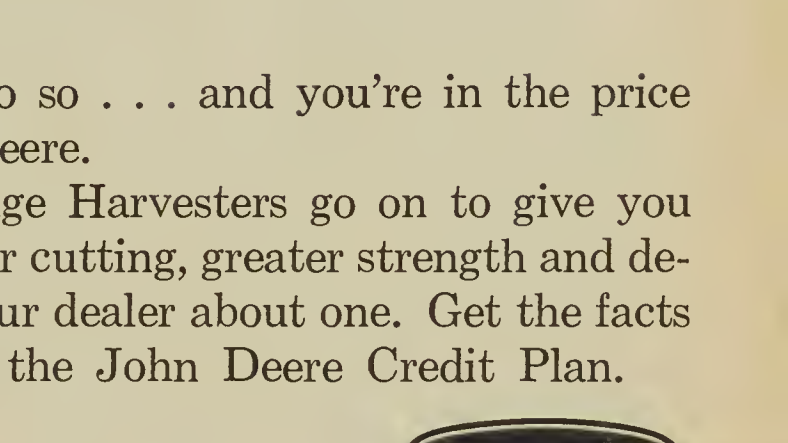
Heavy-duty 12 Harvester above, low-cost No. 6 below.



Chuck Wagons available in 3-, 4-, 5-, and 6-ton capacities.



Two blowers: Variable-speed hopper model; belt-conveyor r



THE NEW ONES!

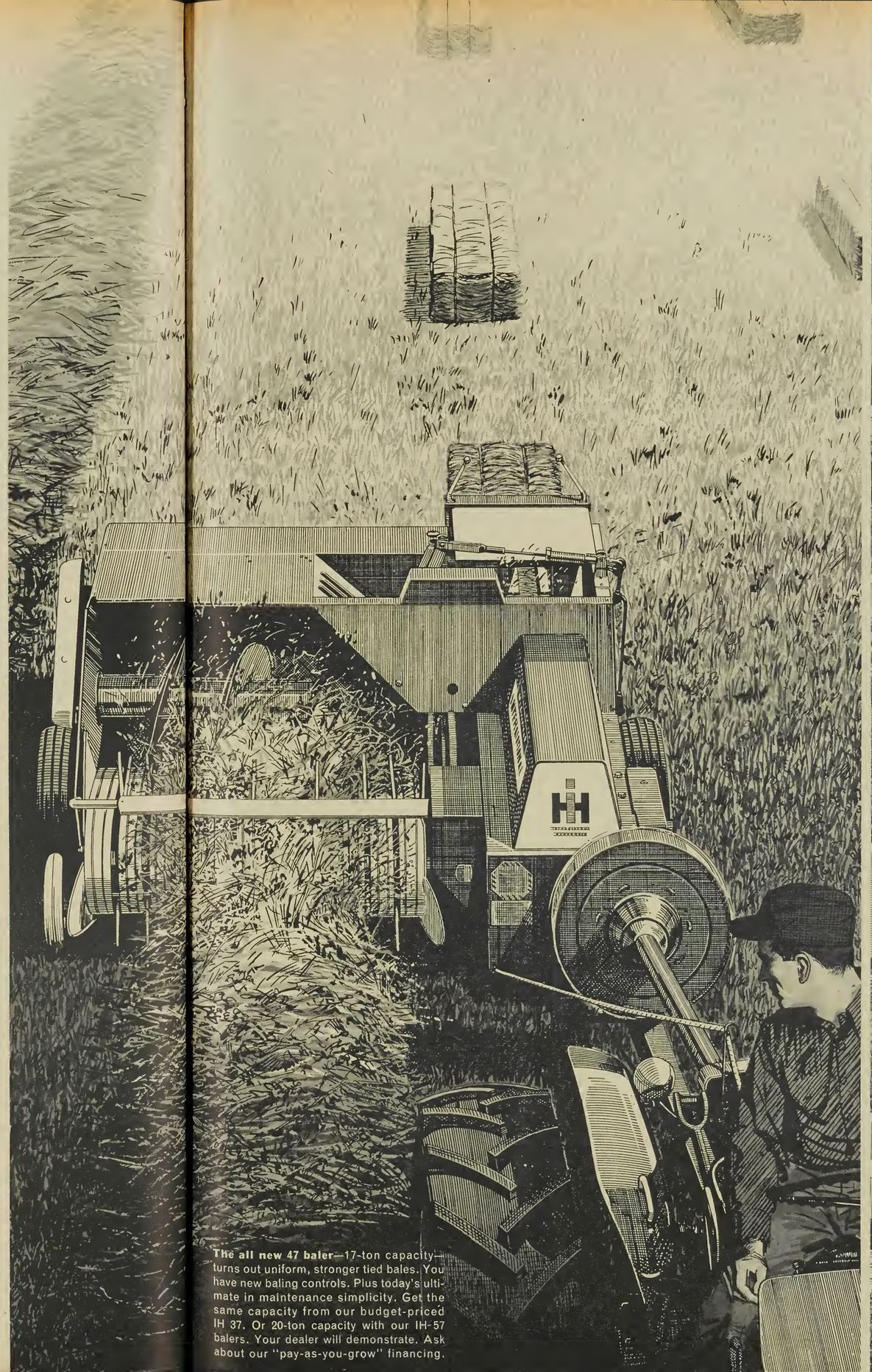
Six ways to more and better hay

You can lose a world of tonnage and quality—plus man hours—between mowing and the time your hay is put up. Leaves can dry and shatter off. Stems won't cure. These IH hay tools will help boost production efficiency and quality.

- You cut heavy stands clean—at up to 7½ mph with exclusive IH pitmanless balanced-head drive mowers.
- IH conditioners with twin rubber rolls "cushion-crush" hay. Stems dry as fast as leaves. Cut curing time in half.
- IH rakes move hay a shorter distance because of new 20-degree raking angle. More teeth per bar assure cleanest raking.
- Save tonnage and money with the 201 self-propelled windrower. You can eliminate up to 3 miles of field travel per acre per cutting.
- Three new balers with 17-ton or 20-ton capacity. New knotter. Double diameter bale ties have tensile strength up to 60 lbs. greater than competitive knots.
- Forage harvesters that cut finer, faster, because of 9-knife cutter head. Brawny. Simple. Big capacity.

Learn from your IH dealer how these hay tools can help you solve all your hay problems except the weather—and we can even cut down your risk there.

The people who bring you the machines that work



The all new 47 baler—17-ton capacity—turns out uniform, stronger tied bales. You have new baling controls. Plus today's ultimate in maintenance simplicity. Get the same capacity from our budget-priced IH 37. Or 20-ton capacity with our IH-57 balers. Your dealer will demonstrate. Ask about our "pay-as-you-grow" financing.



100 mower is pitmanless. Only three moving parts in balanced head drive. 1800 strokes-per-minute knife action cuts clean.



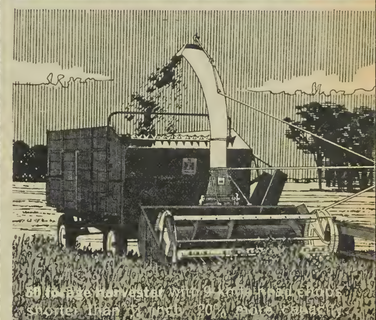
33 conditioner with twin rubber rolls in a new beefed-up custom machine. Built for rough, fast mulling and best conditioning.



14 rake. [illegible] angle-pitched tines. Short wheelbase. Also available, 9 IH 16.



201 windrower. Rugged, low floating platform cuts clean and close. Self-cleaning rubber roll conditioner. 10- to 16-ft. headers.



[illegible] harvester with [illegible] shorter than 12 inch. 20% [illegible] from 20% less power. No V-belts.



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NEW GEHL CHOP-ALL

fine chopping with chrome-edged knives



plus...

* **SELECT-A-CUT gives you short, medium or long forage at the push of a lever**

* **SPRING-LOADED DRAWBAR for easy maneuvering in tight spots**

Gehl chrome-edged knives stay sharp . . . chop more tons of fine-cut forage. The *new* Chop-All keeps this important feature — and lets you select short, medium or long length forage with just the push of a lever on the new Select-A-Cut transmission.

More new features! Maneuver with ease in tight places by adjusting the new spring-loaded drawbar. Change positions as needed — right from the tractor seat. Also, a rigid tripod (optional) holds the forage deflector firmly in place for less twisting and vibrating . . . longer deflector life.

Many new features . . . plus famous Chop-All *fine* cut performance. Six flywheel-mounted, chrome-edged knives cut the crop from inside to outside (like giant scissors) against the long-lasting tungsten-carbide cutter bar. And, they're standard equipment!

For acting NOW!!!

FREE Camera or Bike

Take your pick! One of these gifts, Kodak Instamatic 300 Camera or Roadmaster Bicycle (retail value $50), will be yours when you buy your Chop-All between February 1 and June 30, 1964. Your Gehl dealer has details. Valid only in Continental U.S.A.





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Please send more information on the Gehl Chop-All Forage Harvester. ☐ I am a student.

Name

Route City

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Make us Prove it with a Demonstration!

MOW DRIER

Nine years ago we installed our first mow drier and seven years ago we added another. We put up 20,000 bales of hay in 1963 and finished the first cutting July 15 — the same day that we finished in 1962.

Mow drying saves more leaves, gives us better color, and a chance to keep hay from getting wet. We think cows eat much more hay that has gone over the drier in comparison to hay that has been field-cured. Hay going on the drier is raked when it is still pretty green so that it doesn't dry too much in the sun, but dries instead in the windrow. This keeps the color and prevents the leaves from being shattered when the baler comes along.

I pull the baler in the lot and bale some; if I can't put tension on the baler and the bales are real heavy, I know it isn't ready. On the other hand, if I don't use tension and the bales are light, we go ahead and bale it. Levi Gracey, Watertown, New York.

SEE YOUR NEAREST GEHL DEALER

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Arcade M. C. & C. M. Drake
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Candor Farm Equipment Store
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Central Square Central Square Implement Co.
Clinton Marsh Farm Equipment
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Cortland Cain's Tractor & Implement
Cuba Ernest D. Witter
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Depauville Carl C. Fry
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Dryden Dryden Implement
Fort Plain Hallsville Farm Supply
Frankfort Urgo's Service Station
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Hudson Keil Farm Supply
Hume Ricketts Farm Supply
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Leroy F. W. Bickford
Lowville Foster Millard
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Munnsville Howard Landers
Nichols Thetga Farm Supply
North Java Java Farm Supply
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Panama Panama Farm Supply
Penn Yan Smith's Farm Store
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Richland Springs Lee M. Filburn
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NEW HAMPSHIRE

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Bordentown ... Applegate Farm Equipment
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Newton Farm Tools, Inc.
Stockton John W. Frizzell
Sussex Sussex Welding & Farm Equipment Co.
Washington Smith Farm Equipment

VERMONT

Bradford Blakes Chevrolet Co.
Enosburg Falls Andy Bonneau
Middlebury Knapp Farm Supply Co.
Poultney Charles H. Monroe
Woodstock Woodstock Farm Supply

SILO MEMO

We have five silos, with a combined capacity of about 1,500 tons of silage. Two of them are Harvestores, and last year we put some soft corn ears in one of them for winter feed. It seemed to us that the cows didn't find this soft ear corn silage especially palatable, but we are withholding judgment, feeling that the dry hay crop was short last year, and they may have gotten tired of too much high-moisture roughage.

This last summer, of course, was a short corn season, and we again put some soft corn in the Harvestore. There isn't much else you can do with it after you get the silos full. We have also put some haylage in the Harvestores. The cows relished it, and we are well satisfied with the results.

Lewis and Arnold Cope, East Springfield, N. Y.

DAIRY IDEAS

Before my son Seth went into the armed services we thought we might increase our dairy to a three-man business and hire a full-time man. But after the experience I had with hired help when Seth was away, I was thoroughly cured of that idea.

We do need a new barn, and are studying them all the time, but it will be several years before we actually get it under construction. Right now here are my ideas:

It will be a stanchion barn with the cows facing out. We are figuring on a stable with 25 cows on a side, with box stalls and calf pens at one end, and with two silos in the middle of one side. Then at one end we will have a one-story hay barn with a drive-through so we can store hay bales and random-pack on both sides.

The stable will be insulated and ventilated with electric fans, and we are thinking seriously of putting in thermopane windows. One thing I think will come is a mechanized manger sweeper.

We are now milking 37 cows, and we still sell quite a bit of hay every year, for which there is a good market. We feed hay and silage in the barn, and I doubt

(Continued on next page)

if the cows ever get more than 35 percent of their feed from pasture.

This is alfalfa soil, but we do have some birdsfoot on a piece that is odd-shaped and which we would like to leave down as long as possible. It takes about a ton of lime per acre per year to keep the soil suitable for alfalfa.

You might be interested to know that we have a 16 foot water table - in other words, you could dig down 16 feet almost anywhere on the farm and get water. Alfalfa roots can go that deep or deeper, so they don't suffer from dry weather.

I have never gotten excited about automated feeding. I held a stop watch on one farmer and found that it took him longer to feed with his automated setup than it did us with the silage cart. For one thing, you feed your cows individually, and you keep track of them better. — Cecil and Seth Stockwell, Great Barrington, Mass.

FORAGE PROGRAM

In the fall of 1963 we did some fall seeding for the first time, using 15 pounds per acre of a mixture in the ratio of one bushel of timothy to two bushels of Cayuga alfalfa. We planted wheat on September 15, and put on the forage seed mixture with a drill seeder discharging behind the drill. It seems to us that it would have been smarter, though, to have seeded ahead of the drill so seed would have been covered deeper.

After the combined planting and seeding operation, we used a 16-foot roller weighing about two tons to firm the seedbed and push down any stones that might give a combine indigestion. Our spring seedings have been catching pretty well, either with oats or wheat, unless weather has been especially dry. Watching some of our neighbors do some fall seeding, however, convinced us to give it a try. —Edward and Daniel Culbertson, Lima, New York.

MASTITIS CONTROL

Of our 60 cows, 59 of them once had Streptococcus agalactiae. This is the bug that I call the "mastitis termite" because it does its damage at the beginning without any apparent symptoms. No garget shows in the milk, but the udder tissue is being scarred and damaged.

In cooperation with the State Mastitis Control Program we got this source of infection completely cleared up. I am very grateful to those at the University of Massachusetts who helped me do this; it resulted in a very substantial increase in the herd's production, both in pounds of milk and fat.

We are told that the infection of this mastitis-causing organism will not return once it has been eradicated from a herd unless it is brought in from the outside by an infected animal. Therefore, it is a good idea to quarantine an "outside" addition to the herd until it has been checked thoroughly for the presence of the "mastitis termite." — Martin Peterson, Haydenville, Mass.

How to cut quite a swath.....

(Continued from page 10)

considering a new mower, you'll want to investigate and compare the advantages against the extra first cost.

Optional Equipment

Most manufacturers provide a wide range of optional attachments or accessories which can be added to improve performance of the mower in unusual or adverse conditions. No one manufacturer necessarily provides all of them, nor is any one farmer likely to have use for all of them. But the wide range of available items shows that if you have "problem" conditions, better check with your dealer for assistance.

Normally, knife sections are smooth; special sections provide serrations or ridges on the under side. Chrome-finished sections last longer, run free, and resist gumming and rusting. "Armored" sections have a layer of extremely hard tungsten carbide on the cutting edge; thus, only the bevel side requires sharpening. Time between sharpening is increased to as much as four times that of a conventional section.

At least three options are available in guards — the regular one with removable ledger plate, a one-piece forged guard with no ledger plate, and an open-faced (or "stub") guard.

All-steel grass dividers are lighter than the conventional wooden arrangement. Thus, cutter bar sag is reduced when the bar is lifted. Windrow attachments can be used to guide the swath to the side or to the center.

For high cutting, small wheels can be attached to both the inner and outer end of the cutter bar. With them, the bar can operate as much as twelve inches above ground level.

For simultaneous operation of a mower and a hay conditioner, a pto-drive extension and a hitch can be added to rear-mounted mowers. Thus, the conditioner can be operated directly behind the tractor to process the previously cut swath, while the mower operates to the side of the tractor to cut the next swath. —END

4 ideas from Du Pont to help Northeast dairymen make more milk at lower cost



1 Triple the grazing capacity of your pastures by top-dressing with nitrogen. There's no easier way to do it than with Du Pont NuGreen® urea fertilizer. It's concentrated—45% free-flowing nitrogen for fast and easy spreading. Pastures and forage need nitrogen and for every dollar invested, "NuGreen" can give you back $3 worth (or more) of high quality feed.



2 Grow soybeans and corn without weeds. New Du Pont Lorox™linuron weed killer is the one product that does the job in both crops as a pre-emergence spray. You can use "Lorox" in corn and soybeans this season without risk to corn, soybeans or grain next season; there's no soil residue problem. "Lorox" may also be used in corn as a directed post-emergence spray.



3 Get more alfalfa and clover. Spray Du Pont Marlate® 2-MR methoxychlor insecticide to stop weevils from turning a lush field of alfalfa or clover into a "scorched earth." You'll cut better quality hay that's higher in protein and Vitamin A content. When used as recommended, it does not cause residues in milk. Methoxychlor also controls leafhopper, spittlebug, alfalfa caterpillar, armyworm, clover leaf weevil, flea beetle. This year, play it safe with "Marlate."



4 Keep hornflies from biting your cows and milk checks, too. Simply hand dust with Du Pont "Marlate" 50 methoxychlor insecticide, just as it comes from the bag. A rounded tablespoonful rubbed in along the neck and back does the job for as long as 3 weeks. Hornfly control with methoxychlor is easy, fast and effective; and when it's used as directed, leaves no residue in milk. Keep hornflies from pestering your herd in the barn and on pasture. Rub in protection, fast, with Du Pont "Marlate."

Any one of these ideas will save you money and help you increase milk production. Why not use all four and make the maximum of profit? See your dealer or for more information write Du Pont, I. & B. Dept., Wilmington, Delaware 19898.

On all chemicals, follow labeling instructions and warnings carefully.

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HOW TO CLOBBER THOSE

BLASTED FLIES!

by John G. Matthysse*

FLY CONTROL for livestock will see considerable change in 1964 because some unusual new insecticides are entering commercial use. The foremost hurdles to acceptance of new materials for use on dairy cattle are proof of good fly control, and proof of zero residue in milk. A class of compounds known as vinyl phosphates are most unusual in that they break down so rapidly inside the bodies of mammals that none can enter the milk.

Some of these compounds have the desirable, but seldom found, combination of long life as deposits effective against insects, and short life as contaminants of food products. Insecticides of the vinyl phosphate type include Ciodrin, Vapona, Dibrom, Neguvon (also known as Dipterex, Dylox and trichlorfon) and Compound 4072.

Better fly control demands an understanding of the fly problem by farmers; they don't do much good just by spraying a small amount of fine mist over the cattle. The dairyman using this practice is merely giving himself and the cattle a more pleasant time during milking.

The real culprits are blood sucking flies — and the face fly — on pasturing cattle. To control flies biting cattle on pasture requires thorough coverage of the cow's body with fly spray, and this means 1½ to 2 ounces per cow per day. For a 65-cow herd this is 1 gallon a day, or 2 drums of fly spray during a 3½ month season. Most dairymen use much less than this, and they should expect only relief at milking time as a return for the money they spend on fly spray.

What should be in a good stock spray? The new item is Ciodrin and Vapona; most commonly 1 percent and .25 percent respectively. Such a spray has given good protection of cattle throughout the day; even face fly was stopped by this spray in 1963 experiments. However, 1963 was an easy year as face flies were not abundant; if we have prolonged hot weather in 1964 we may not obtain good face fly control.

Older types of stock sprays remain highly effective if they contain adequate amounts of pyrethrum and/or thiocyanates, synergist and repellent. Adequate pyrethrins means 0.06 percent to 0.1 percent, plus synergist. It is difficult to recommend specific repellents because labels on fly spray cans give contents in involved chemical names. Effective repellent concentrations vary from 0.4 percent to 8 percent depending on the repellent.

Do It Right

Applying stock sprays to cattle is seldom done properly. Small hand atomizers and "paint-gun"-type electric atomizers are best used to fog down the barn to get rid of flies, but not to put a residual deposit on the cow. Applying 1½ to 2 ounces of spray to the cow requires a relatively large droplet spray directed at all surfaces of the cow by holding the sprayer close (1 to 3 feet) from the cow. Hydraulic hand sprayers such as the Hudson Hydra-Gun will do this, and also some electric mist machines set at maximum output rate.

Calculate, from output rate, how much time to spend on each cow. One good machine puts out 4 gallons of spray per hour, or the required 2 ounces in 15 seconds. With this machine take at least 15 seconds spraying time on each cow, requiring 15 minutes for a 60-cow herd. Daily treatment after the morning milking is best. If you find that fly populations on the cattle on pasture are very low, less frequent spraying may be adequate.

Labor Saver

The easiest way to get this daily chore done is by "in the doorway" automatic sprayers. These are developing rapidly, and efficient models are beginning to appear. Five nozzles is a minimum; seven better. Electric eye sensing devices can be a headache to keep working properly; mats like those used at supermarkets doors may be more appropriate. At any rate, automatic sprayers are particular-

(Continued on page 46)

*Entomology Department, Cornell University

Kill Canada thistle with one spray application—and without sterilizing soil. Use Weedazol herbicide. Spray on Weedazol when thistle is in bud to bloom state. Kills weed plant, and when applied before seed maturity stops production of viable seed. Economical. Even a quarter's worth of Weedazol kills a lot of thistle—in fact, a couple of hundred square feet of solid stand. Weedazol is a soluble powder—dissolves into a true solution. After mixing, no agitation required in the tank. Non-flammable, non-volatile, will not sterilize soil or affect succeeding crops. Non-toxic to humans and to animals when used at recommended rates. Follow label directions.

BEST SOLUTION FOR A STICKY PROBLEM...

WEEDAZOL®
CANADA THISTLE KILLER



NOW IS THE TIME to "clean house" on your farm—get rid of Canada thistle. Call your dealer for Weedazol herbicide. If you prefer a liquid concentrate—Amitrol-T will give you the same herbicidal action at the same price per gallon of finished spray.

AMCHEM®

AMCHEM PRODUCTS, INC., Ambler, Pennsylvania ★ 50th Anniversary Year ★

It's New

Chemosterilants — An effective method of fighting insect infestations seems to be by way of sterilization. Insects that escape contact with an insecticide can breed a new generation; those that escape a chemosterilant may waste their fertility mating with sterile partners.

To this end two major U. S. chemical firms, American Cyanamid Company and Interchemical Corporation, have joined forces to develop and market chemical compounds to do the job. Much research and testing remain to be done, however, before a safe chemosterilant will be ready to market.

Saranac Alfalfa — This is a new variety developed by the scientists at Cornell University. A small amount of certified seed will be available in New York and adjacent states in the spring of 1965, but it will be 1966 before you can count on getting much of it.

Saranac's growth habits are similar to those of DuPuits and Alfa. It is resistant to bacterial wilt, and in Cornell tests it has persisted for one or two years longer than the other two varieties. Under intensive management yields are very high. If allowed to bloom it will look a bit different from DuPuits and Alfa because it has some yellow and variegated plants in it. The first cutting, however, should be made before there is much bloom, and at that stage it will look much like DuPuits and Alfa.

One Answer — Any poultryman will agree that his chicks do better with a little antibiotic in their feed, but it isn't likely he'll be able to give you a very good explanation of how the drug works to help the chick. In fact, even the researchers don't have all the answers.

Researchers at the University of Wisconsin, however, have evidence that bacteria in the chicks' intestines destroy some of the products of protein digestion before they can be absorbed in the blood stream. By killing these bacterial parasites, the drugs "save" more of the protein for the chicks.

Milking Machine Tester — The University of Illinois has developed a milking machine tester that can be made at home. The milker vacuum lines and pulsators can be checked with the device, which requires only a vacuum gauge, a water pipe tee, an airtight valve, and a piece of rubber air hose. Write the University of Illinois, Department of Dairy Science, Urbana, Illinois, for their new leaflet which tells how to make and use the analyzer.

Shrinking — The scientists are "shrinking" the size of apple trees by spraying with a retarder, known as B995, which slows growth but has no apparent ill effect on foliage. The leaves grow to full size, are green and well developed. This should not be confused with dwarf trees whose size is limited with rootstocks.

Professor Louis J. Edgerton, pomologist at the New York State College of Agriculture, says that one of the biggest benefits could be reduction in pruning costs. In terms of labor, it is estimated that pruning takes about half of the man-hours spent in growing apples. Growers could also, of course, squeeze more trees into their orchards, and cut down on spraying and harvesting costs.

Extensive tests are planned to analyze fruit development, the use of B995 in combination with other compounds, and the use of it on trees of different ages.

Push-Button Farming — Under development are: a self-guided tractor that stays on course from feelers brushing the crops; a turbine tractor engine burning LP gas that needs no gears, throttle, or conventional brakes and clutch; power equipment operated by remote control radio signals, and a haywagon that picks up bales and stacks them neatly on an adjoining truck.

Feed Hormones — A hormone that can be mixed with cattle feed to regulate the reproductive cycle has passed research tests and — under carefully-controlled supervision — can be used in farm herds.

Professor William Hansel of the New York State College of Agriculture at Cornell, says that "a reliable fieldman or veterinarian can work closely with the farm owner to successfully breed a high percentage of a herd to top bulls in one or two days."

Hansel comments that the new method will probably find its best application in commercial beef cattle operations, where it will make artificial insemination a widespread practice. Also, dairy cattle owners will find it a useful tool for breeding heifers to top sires before turning them out to pasture.

In the research, the hormones have proved more effective with ruminants than with simple-stomach animals. The hormones are not yet on the market, but drug companies are preparing to manufacture them.

Ten years ago the moon was an inspiration to poets, and an opportunity for lovers. Ten years from now it may be just another airport.

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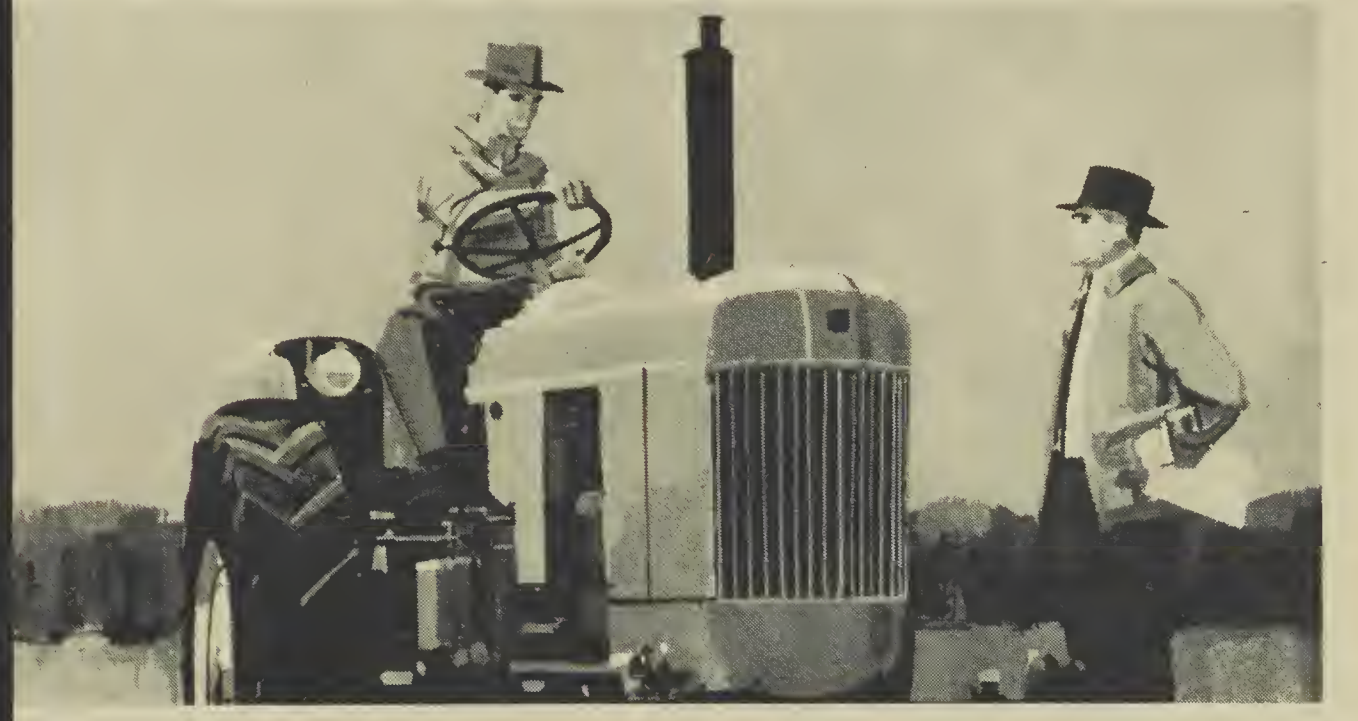
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* Nitrogen-free extract
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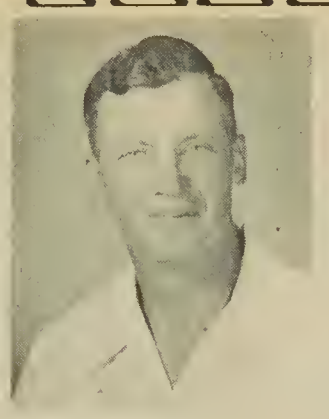
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Gayway Farm Notes

by HAROLD HAWLEY

A TURNING POINT!

There is a card in our files which we will keep — not because it gives us any satisfaction, but because it is possibly a most significant communication.

Many of you received a similar one from your ASC office. It says that we must request measurement of our wheat acreage **or it will be assumed we are over-planted.** In the event of a future wheat program with acreage controls we will then automatically be penalized because of the alleged over-planting!

Can this be America? Since when has a man been guilty unless he proves himself innocent? Is there any basis in law for any government official to issue a directive which is in contradiction to the basic foundation of the laws of the land? So far as I am concerned, it is no one's business how much wheat I have this year, inasmuch as the wheat referendum was defeated last spring.

However, that is not the point. Neither is it the point that the Administration pushed a bill which would again provide for a referendum on a certificate wheat plan after we had overwhelmingly said "No" on this once. Makes you wonder what you have to say to say "No".

The point I want to make is that for the first time in my experience I have been treated like a citizen would be in some other countries. I have been told I will be assumed to be guilty and be penalized accordingly unless I prove myself innocent.

I fear this could mark a turning point in this country of ours if it is allowed to go unchallenged. No one, no matter how highly placed, should have the power or the audacity to issue such a directive unless and until we first go through the formality of scrapping the Constitution and the Bill of Rights.

Some legislators with whom I have discussed this were both surprised and indignant that this could happen. Have you told your Congressman and Senator about your card? I sincerely hope you will, because I think we have started around a wrong turn. Now is the time to correct this.

BARNS

We have been inspecting several new and remodelled cow-housing arrangements lately in preparation for our building program. Just as in your area, there are those sold on conventional stanchion barns, those with stanchions and pipeline arrangements, those with stanchions and a parlor, loose housing, and free stalls with parlors — and endless combinations thereof. The slickest deals are the new ones where the builder was not hampered by trying to tie into an old building. But most of us have to make the best use we can of the existing structures and build from there.

The amazing thing is the difference in time it is taking various people to care for 50 to 75 cows! The variation is about as large within a given system of housing as between systems. In other words, some stanchion set-ups are pretty efficient and some are pretty bad; likewise for the other systems.

I can't escape the notion that a well-planned-out free stall-parlor setup should save work and costs. More and more we're impressed by the savings in feeding time, and in the time not needed to turn them out to check for heat. The saving in milking time is much less obvious — but it naturally is easier to milk in a decent parlor.

Certainly the man who is going to be milking cows in the years ahead will have worked out a plan which enables him to tend his 75 cows per man with a minimum of labor. I'm pretty well sold on the notion that a reasonable goal is a million pounds of milk per man — if conditions are right. We are a long way from this, but this is our goal — and we are going after it as the best way we know of to compete and stay in this business we prefer.

APPLE BLOSSOM TIME

We try, every so often, to get to Rochester when the lilacs are at their best in Durand-Eastman Park. It is a sight well worth the the trip. However, what really can compare to the beauty of an apple orchard in full bloom? We were talking with Leo Wiley from Ontario County the other day and he said he and his wife have been going up to the Sodus area at apple blossom time for as far back as he could remember. It's a fine thing to take note of the beauty around us and perhaps to reflect on the wonders of nature.

In early March we were skidding logs from the woods. There was a couple of feet of snow on the ground, yet when the logs scraped it away in a place or two there were sprouts and leaves either already growing or just waiting for a chance. I suppose it is no different than finding wheat ready to grow as soon as the snow gets off but here was "spring" under two feet of snow.

I couldn't help reflect how

(Continued on next page)

strange it is we can live so long and know so little about our surroundings, and about the fundamental things of nature so important to us. What a gift it must be truly to have the discerning eye to see not only the obvious beauty of the apple blossoms but the equally wonderful natural phenomena all about us!

This leads one naturally to think of some of the places and situations where he has found peace — harmony with the world. Surely not in the noise and hurry of the city, but alone in the great outdoors. For some it may be sunrise along a stream or lake, or again in the freshness of the pine woods. Our drumlin offers a nice view, a breeze, and has at times given us a chance to get things back in perspective. The peace which comes to a person alone in the big woods is better than all the medicine. What a pity we don't take the time to keep ourselves at our best by more frequent communion with the forces of the Almighty!

ATRAZINE

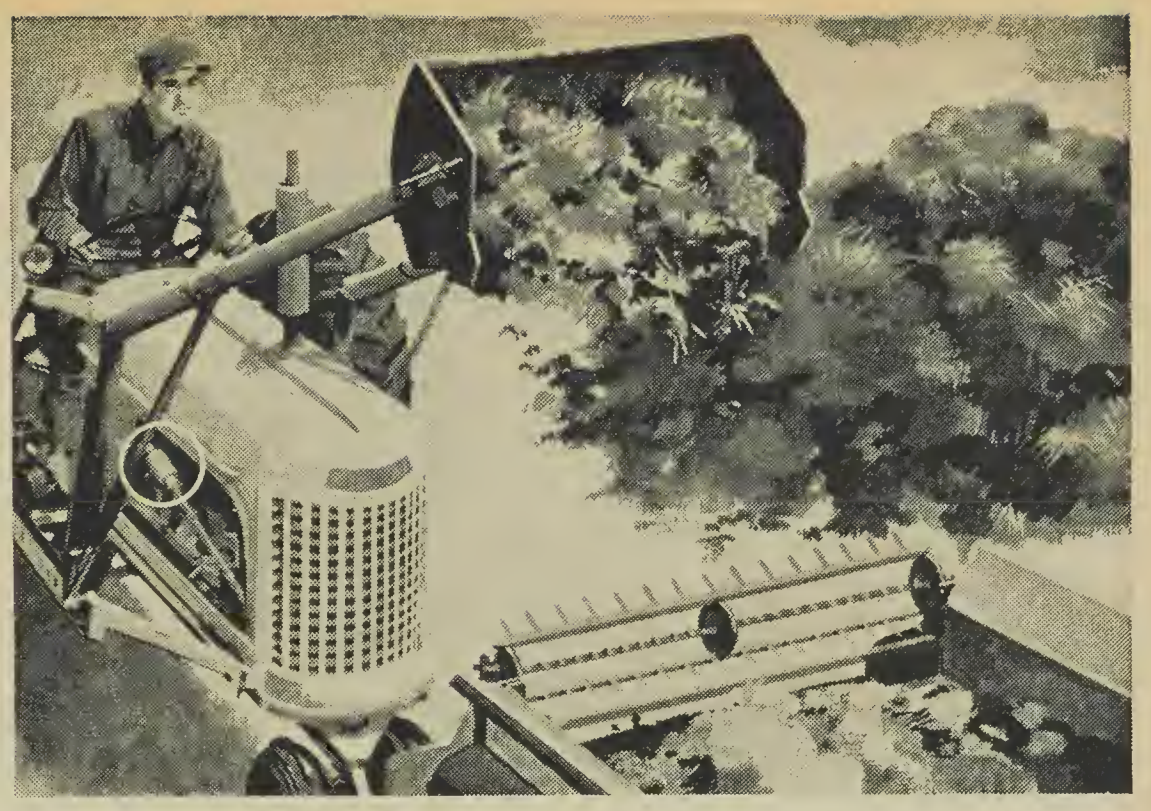
Last year we got rigged up to put granular Atrazine on in bands over the rows as we planted corn. Then we expected to put rye grass on broadcast, really not counting on much on the treated strips. Actually it was dry and the Atrazine wasn't of much benefit, so we got a stand of rye grass over the whole row.

The latest word is that granular Atrazine is not being offered this year. It's therefore back to a spraying program, with a little uncertainty about the effect on the rye grass which will be seeded later. We will hold the application of Atrazine to 1 pound per acre and are guessing (and hoping) we can grow rye grass too.

SOMETHING NEW

Just prior to Easter we received a plain envelope in the mail. The sheet inside was decorated with Easter lilies and said "Happy Easter." There followed a page and a half of well-chosen remarks and poetry consistent with the sentiment expressed in the salutation. This letter presumably went to the customers of the sender, yet there was no attempt to commercialize or "cash in." It was a fine Easter greeting, in good taste, and sent with sincerity. It was something new to us, and we salute the "Na-Churs" Plant Food Company for this nice gesture.





Char-Lynn POWER STEERING cuts loading time 15%

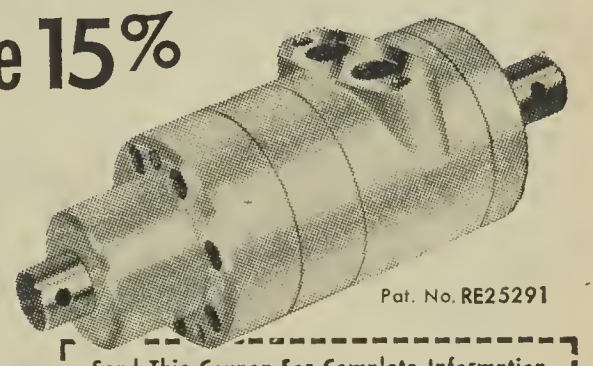
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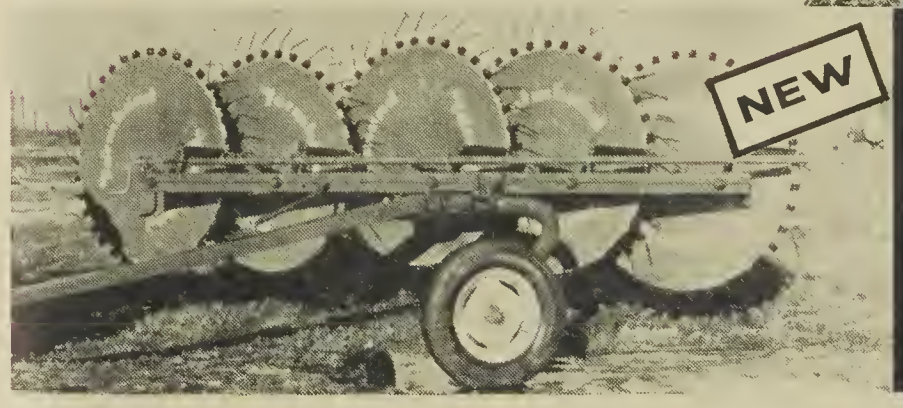
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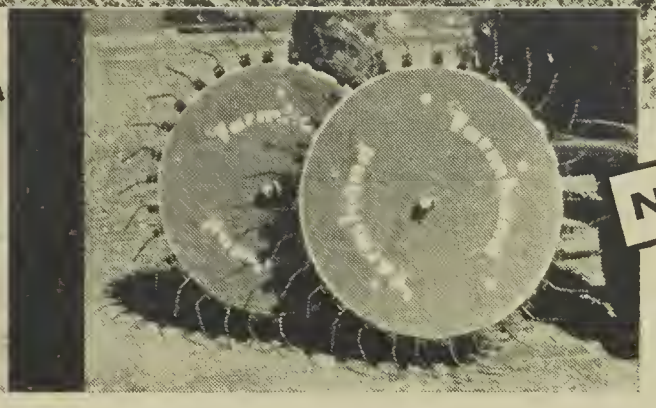
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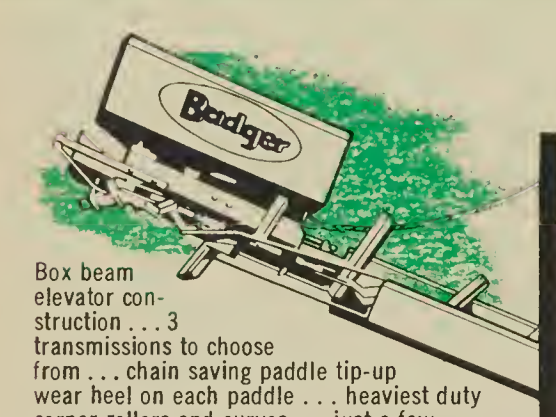


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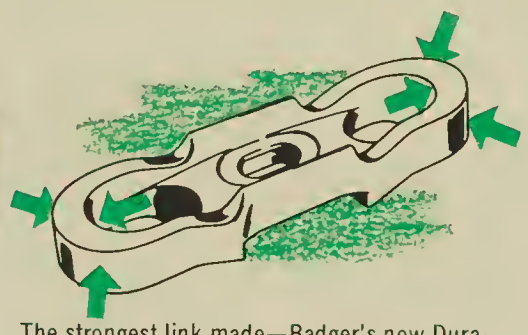
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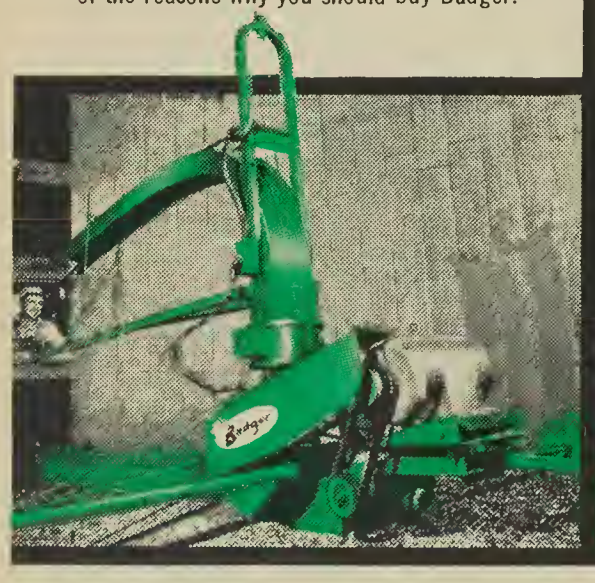
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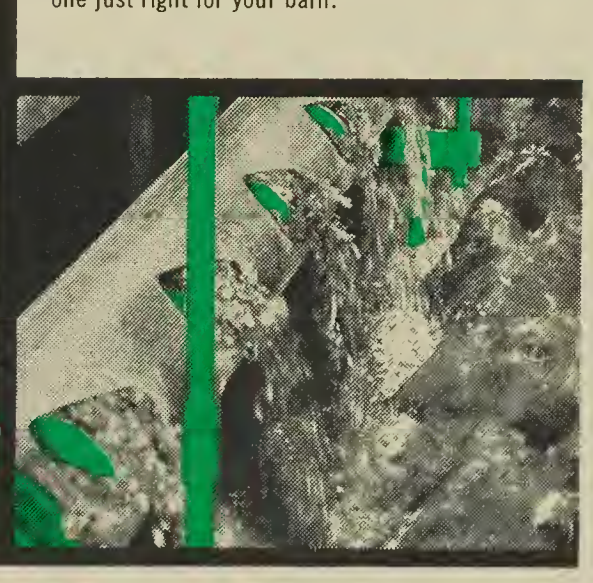


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Don House (right) visits with Fred Durkee about one of the top cows at Durwick Farms.

Production Formula: by GORDON CONKLIN

Genes Plus Management

AMIDST THE lush farming country northwest of Geneva, New York, the Durkee family has a dairy business known as Durwick Farms. George and son Fred are partners in calling the shots concerning the purebred Holstein herd; Fred's five daughters tend to the miscellaneous livestock — dogs, rabbits, horses, etc.

Beginning on a shoestring in 1942 with "three cull cows and one good cow," the Durkees now operate 470 acres and report an average production of 15,193 pounds of milk and 552 of fat for their 62-cow herd. Only one full-time hired man, Dick Helstrom, is needed to complete the work force for this sizable operation.

Used AI Early

The Durkees began using artificial insemination on their better animals right at the start in 1942, plus some natural service. Across the years, semen from all three studs serving New York State have been used at various times. George is the bull pedigree expert at DurwickFarms, serves presently on the Sire Selection Committee of American Breeders Service.

"An inseminator has really to know his apples to do a good job in directing a dairyman's breeding program," Fred says. "The dairyman has to do his part, too; he should know what he wants and know his cows. A capable inseminator and a farmer who's interested can team up to bring real genetic buildup in a herd."

The Durkees normally select "test-tube bulls" after talking it over with ABS inseminator Don House; it's obvious that Don's judgment is respected. Semen is selected most of the time from one or the other of two bulls, but special genetic considerations call for a scattering of matings using several other bulls.

"We're after milk production," Fred says, "but we think some type is important to lifetime production. Good udder attachment for instance, keeps cows in the milking string." Some breeding stock is sold — five animals in 1963 — but milk production gets highest priority.

Genetic improvement of the dairy herd has been matched at Durwick Farms by management practices that give cows the raw material needed "to express their genetic potential," as the experts say. During the dry period, cows get two to three pounds of grain a day, moving up to a range of six to eight pounds during the last two weeks before freshening. "We use the cow herself as a guideline," says Fred, "tailoring feeding to her condition!"

After freshening, grain is increased as fast as a cow will clean it up; 30 pounds per day is the usual peak, although two cows once hit 34 pounds apiece per day. DHIC recommendations are used as guidelines to keep feeding in line with production after a cow peaks in grain consumption.

The basic grain ration is two-thirds ear corn, one-third oats, plus a 40 percent protein supplement that brings protein level of the entire grain ration to about 13 percent.

As you might have guessed from that protein level, hay runs heavy to protein-rich alfalfa — hay that Fred believes earlier cutting has made much higher in quality than it was a few years ago. There are five silos on the three farms that make up the entire operation, so silage also figures heavily in the roughage program. Corn and wilted (65 percent moisture) haycrop silages are fed; uncured hay that gets rained on is often sent up the blower pipe too.

Exercise Lot

Cows don't go to pasture, have only an exercise lot in summer where silage is fed from moveable feeding wagons. A manure spreader with side-unloading attachment brings silage to the feeders.

Speaking of manure, since 1954 the Durkees have cleaned their barn in winter with an ingenious push-type gutter cleaner that in-

(Continued on opposite page)

cludes a $300 tractor and a home-made attached blade. Manure is pushed straight out and down into the spreader that sits in a pit at one end of the barn. It's a simple and inexpensive setup with mighty low maintenance costs.

The Durkees like to have heifers freshen between 24 and 30 months of age, prefer them to weigh around 1200 pounds at that time. Angus semen is not used as a "heifer freshener." All calves to be raised are dehorned early with an electrically-operated heat ring.

Community Work

Fred, who was the first FFA boy to be named an Empire Farmer at his school in Clifton Springs, carries his share of community effort. He's a director of the Ontario County Farm Bureau (his father has served as president), is a past GLF committeeman; he's also active in the Extension Service organization and the Methodist Church, as well as being a volunteer fireman. George has many irons in the fire, too, including three years of participation in Operation Advance, an Extension Service effort designed to help local leadership explore and come to grips with public problems.

Both have a healthy philosophy that there are other things in life besides production per man, net worth statements, and labor income. The Durkees think these things are important and work hard at improving them, but also make sure that the community, their families, and enjoyable "goofing off" are included in their schedules. More power to them!

Dates to Remember

May 1 — 15th Annual New York Beef Cattlemen's Breeding Stock Sale, Caledonia, N. Y.

May 2 — Little National Dairy Show, Delhi Agricultural and Technical Institute, Delhi, N. Y.

May 3 — Rural Life Sunday

May 4 — Eastern Guernsey Show, New Jersey State Fairgrounds, Trenton.

May 5 — Annual Meeting of the American Guernsey Cattle Club, Holiday Inn Motel, New York, N. Y.

May 8 — Guernsey Sale, Hanover Hill Farm, Yorktown Heights, N. Y.

May 8-9 — New York State Association of FFA annual meeting, Attica Central School, Attica, N. Y.

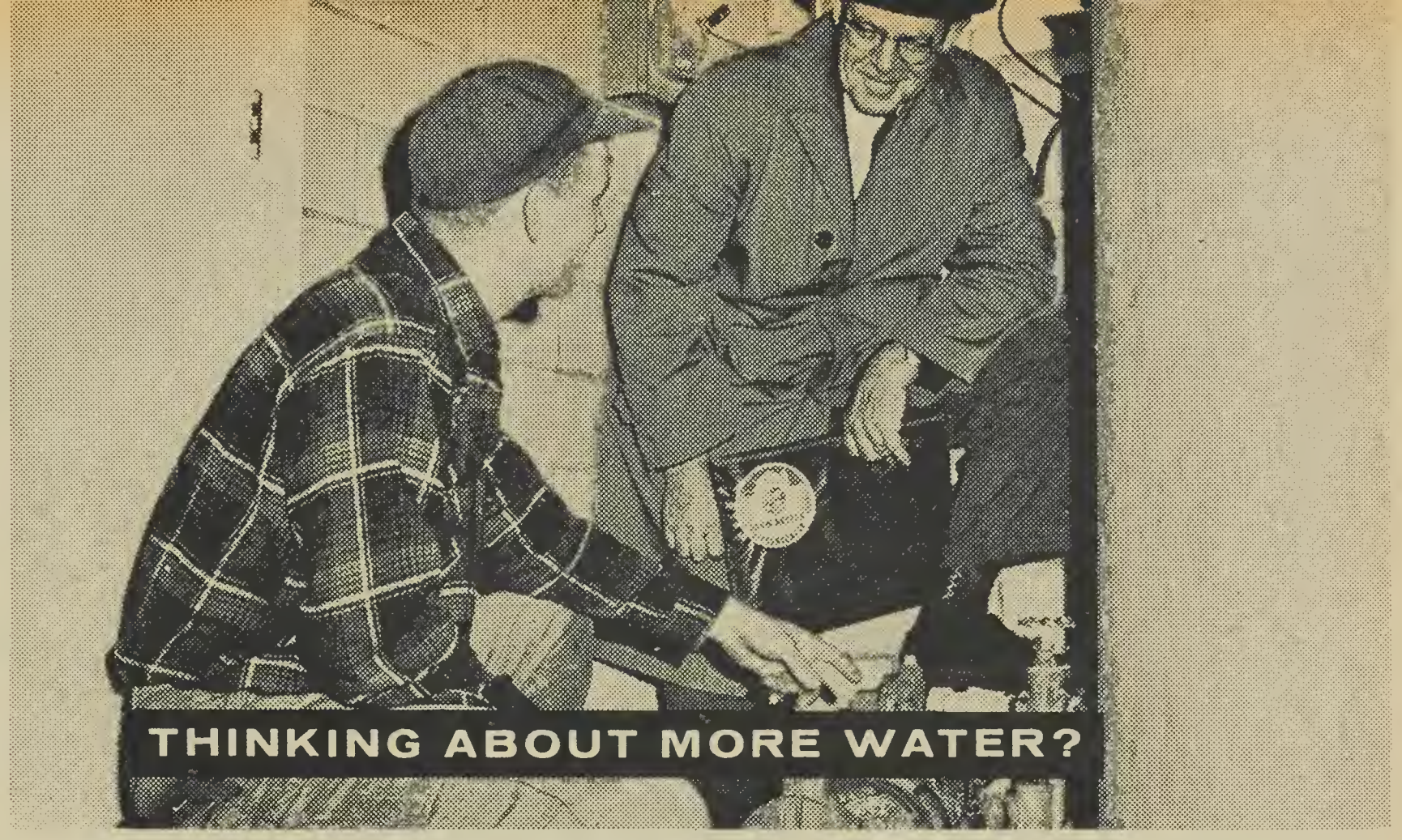
May 13-16 — Annual Meeting and Convention New York State Milk Distributors, Inc., Parkway Inn, Niagara Falls, N. Y.

May 14 — Annual meeting New York State Dairy Boosters, Inc., Parkway Inn, Niagara Falls, N.Y.

May 17-22 — School for Poultry Industry Managers and Business Executives, NEPPCO, Nassau Inn, Princeton, N. J.

May 21 — Annual Dairy Dinner, Barre Auditorium, Barre, Vermont.

Why did the moron bring a ladder to the baseball game? He wanted to see the Giants.



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TWO CRITICISMS

Mr. H. V. Shute, in his article in American Agriculturist, "What's New in the Maple?", says of the size of maple syrup cans, "Cans should be so constructed that filled to the brim each holds a legal gallon of syrup." This would have been true many years ago when the common practice was to can syrup cold. But for a long time all progressive syrup producers have been canning syrup hot, at 180 or 190 degrees F.

This requires that cans be oversized by six cubic inches for the gallon size. It takes 237 cubic inches of hot syrup to fill one of these oversized cans "to the brim." Then when the syrup cools to room temperature, there will be 231 cubic inches of syrup, a legal gallon, but with a 6-cubic-inch vacuum at the top. All cans made by all can companies have been oversized for many years.

A more serious criticism to be made of Mr. Shute's article is of what is said about plastic tubing. Mr. Shute says: "I personally tried a plastic pipeline, laying it out directly from the drum it came on. The first batch of syrup made from the sap was flavored with plastic and would have been a commercial loss."

Readers of Mr. Shute's article might become prejudiced against *all* plastic tubing unless they are informed that what Mr. Shute says about the plastic flavor does not hold true of all brands of tubing. At least this has not happened in my experience with tubing for six years, and I have never heard anyone else report it. — Welsey R. Wells, Moravia, N. Y.

FREIGHT RATES

My comments concern the question of rail freight rates on grain from the Midwest. Can the Eastern railroads haul grain into the Northeast at about a $5 per ton reduction and still make the commodity pay for its own transportation? If they can, all's well and good, but if they cannot, who is going to subsidize the rail carriers?

Are we going to make other freight or the taxpayer pay the difference? Maybe it would be better to force the railroad to haul feed and grain at a loss so that they in turn would shut out the trucking industry from hauling grain!

I am a feed grain grower and marketer. I help the economy of this area by hiring labor, buying fertilizer, seed, supplies and equipment, and paying a high real estate tax. I want to be able to make a living off my farm and do not care to be driven out of business.

I cannot produce and market my grain at the same price as a Midwest grower, because my costs are higher, namely the price of land, taxes and labor. If I can't make a profit growing grain, then I shall put my entire farm into dairying and since this farm can support 200 cows, I'm sure I wouldn't be adding to the surplus of milk in the Northeast too much. — John Browka, Verona, N. Y.

VOLUNTEERS

Volunteers for community work are getting scarcer because people want things for their own family and they are not staying home to take care of some other women's children while they are working. Oh yes, it's very noble to do this, but after a while it irks you, and we're not that self-sacrificing!

I have taken girls to camp during the summer, to camps on weekends, to museums and many places of interest. In all the years I can count on my ten fingers the notes of thanks that I have received. It is that feeling of being taken for granted — that you are being used for selfish purposes — that irks one after a while.

I have taken care of a scout troop of 26 girls by myself for the last three years, but could not get a parent to volunteer as an assistant leader because the mothers of 24 of the 26 girls were working. When we held a meeting at night, some of them would not put themselves out to call for their girls to take them home.

I have seen troops being disbanded because the mothers of the girls did not or would not volunteer. I say that if a parent wants her child in these organizations, it is her duty to do her share in the organization and not expect too many things to be done for her child — and, above all, to be a little grateful. — Mrs. Kenneth Nelson, New York, N. Y.

A Bouquet

To be without the American Agriculturist would be like being without food. My wife and I read it from cover to cover. — Charles Hoose, Willseyville, New York

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MORE ABOUT PODUNK

THERE'S JUST no question about it — there are quite a lot of Podunks across the Northeast! This is testified to by the letters that have been coming into our office since the February issue of American Agriculturist came out with the editorial about Podunk in Tompkins County, New York.

Many of our Massachusetts readers wrote us about their Podunk, located halfway between Worcester and Springfield. It has a small church, a cemetery and a cluster of houses. Incidentally, the Solomon Richardson house (a true "salt box")-which was built about 1748 in Podunk, East Brookfield, now stands in Old Sturbridge Village.

Writing of this Podunk, C. W. Livingston, the Katz Agency, New York City, says:

"Until the Massachusetts Turnpike was finished we used to love to travel through Podunk on our many trips to visit my wife's family in the Boston area. There is a very busy traffic light (it is enormous — the most active spot in town) at a complicated intersection which occurs on a wide bend in the highway!"

Podunk, Massachusetts, comprises a six-square-mile tract of land bought from the Indians over 300 years ago. In a "History of North Brookfield" the name is said to signify "Place of Burning" — where the Indian's captives were burned at the stake.

And this Podunk has still another claim to fame, for the 70-foot Christmas tree which adorned Rockefeller Center in 1959 came from that locality's Alva Silliman Farm.

New York State

Allegany, Chenango, Madison, Oneida and Washington Counties in the Empire State all boast of Podunks. The one in Allegany County is near Rushford, and is spelled "Podonque." For many years a fine cheese factory was located there and a sawmill run with water power. Now it is a thriving milk-producing area. The Arthur D. Williams farm, for example, was cleared in the 1830's by his great-grandfather. Registered Holsteins have been raised there since 1911, and their prefix is "Podonque."

East Pharsalia, Chenango County, has been known as Podunk for a hundred years, according to Mrs. Bessie Aldrich of McDonough. There was once a rural orchestra or band known as the Podunk Hill Billies. "The main characters," says Mrs. Aldrich, "were Anna and Dolph Sayles; they were nationally known, and funnier than anything we see on TV today."

Change in Nationalities

Forty miles south of Syracuse and two miles south of Lebanon village is Madison County's Podunk. It supported a blacksmith's shop, a grocery, sawmill, a school, and several houses, most of which are still in use. Mr. Arthur E. Wedge, Earlville, who wrote us about this locality, says that he was a grown man before he ever heard the place called anything but Podunk.

Eight miles north of Rome, in Oneida County, is a farming section by the name. The farms now are owned by people of Polish descent, although the first settlers in the area were of Irish descent.

Bert Bullion, Supervisor of the Town of Stephentown, writes:

"There is a hamlet in the Town of Fort-Ann, Washington County, called Podunk. It was noted for its iron mines, which ran during the Civil War. There is also a beautiful lake which was called Podunk Pond — now changed to Lake Nebo."

Other States, Too

There are two Podunks reported in Connecticut, one at Guilford, the other a district of South Windsor. Pennsylvania has a Podunk at New Milford, and near the town of Wardsboro, Windham County, Vermont, is a small cluster of houses, occupied by summer people, named Podunk. Here the meaning of the name, still considered of Indian origin, is given as "Pleasant Valley." Mrs. Harold F. Davis, Rutland, tells us that she taught in the Podunk School there in 1917.

The section in Windsor County, Vermont, known as Podunk is given over to hunting camps now, and about all that is left of the old community is the little cemetery in the woods.



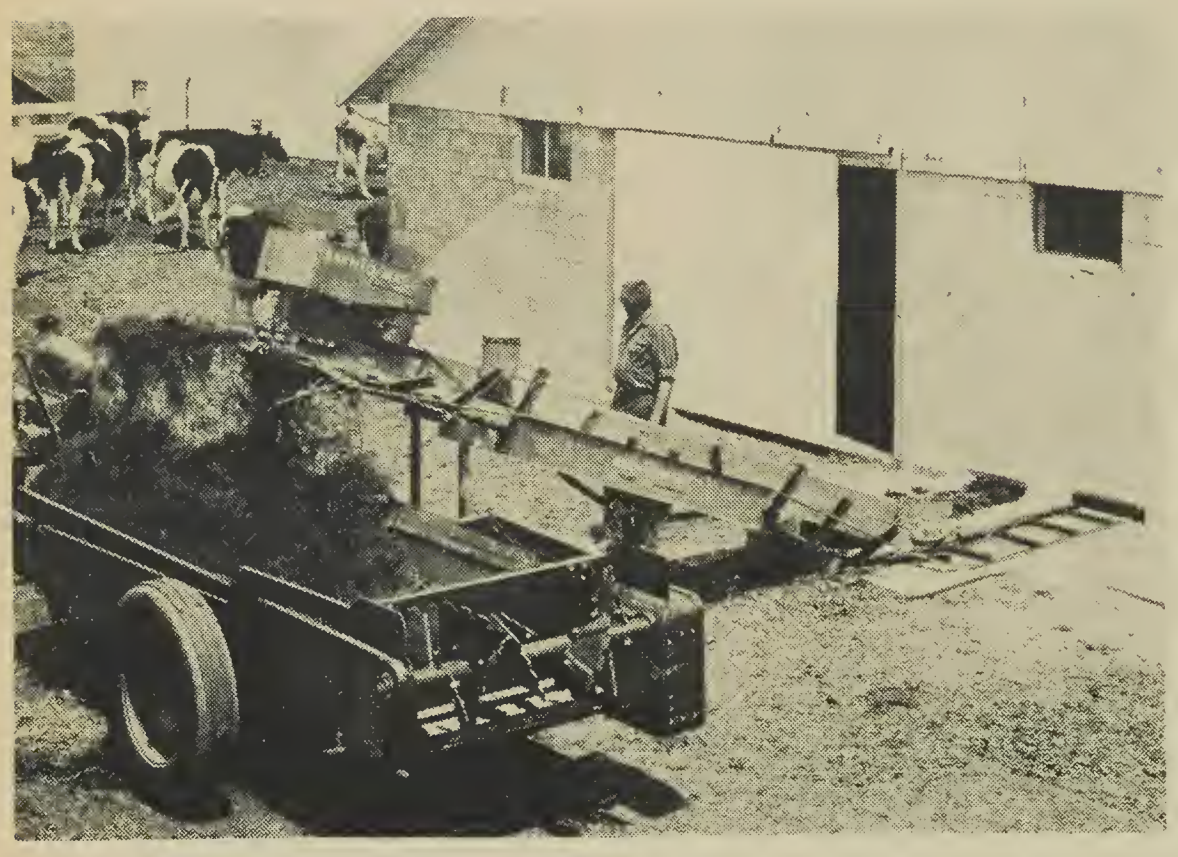
John E. May of Charlton, Massachusetts, tells us that this beautiful elm at his home was planted by a young man who was killed in the Battle of the Wilderness in 1863. It is near the village of Podunk, in Worcester County, Massachusetts.



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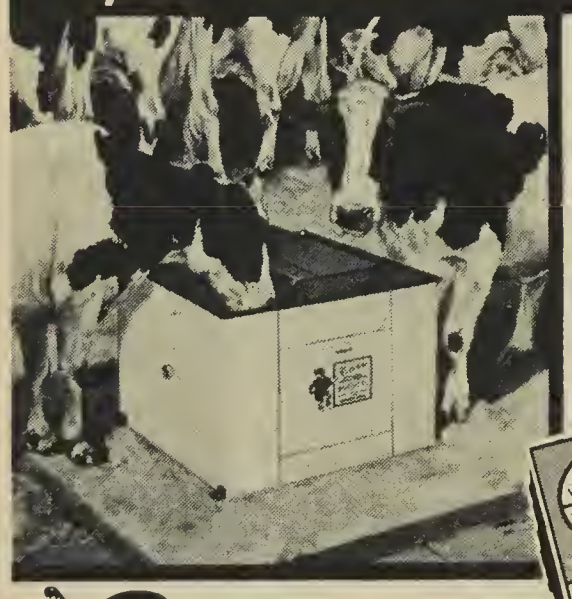
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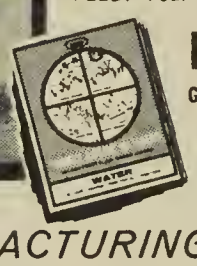
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POTATO CONTRACT GUIDES

Note: The following suggestions are the result of a study made by a joint committee of the Steuben and Wyoming County Farm Bureaus, and have been approved by the boards of directors of the two Farm Bureaus. Members of the committee are: *From Steuben County:* Dale Werth, Chairman; Roy Gibson, Gerald Moore, John C. Reimels, Antone Case, Stanley MacDougal, Wendal Schwingel, Murray Mahaney. *From Wyoming County:* George Gozelski, Everett LaWall and Harlan Fisher.

1. In order to avoid misunderstanding between grower and buyer, the grower should know what the processor's specifications are for grade and chipping quality. If possible, they should be included in the contract. When a contract refers to any specifications these specifications should either be included or appended to the contract. The grower should also give consideration to having included in the contract (a) who determines whether a lot of potatoes meets the specifications and (b) where this determination is made.

2. The committee recognizes that there is considerable difference among processors and that some do an excellent job of relations with growers with whom they sign contracts. The committee suggests that other processors should work more closely with growers in helping them maintain proper storage conditions so as to bring potatoes around to buyer's specifications. The committee also suggests that efforts be made to determine whether or not potatoes meet buyer's specifications **before** they leave grower's storage.

The committee suggests to growers that they seek out such processors and buyers who would work closely with them on the above matters.

3. The matter of transportation from storage to processor is important. All kinds of trucks are available — some good and some not so good. Growers should seek clean, well-heated and insulated trucks with air circulation which will maintain proper temperatures from point of loading to destination. This is important from the standpoint of maintaining proper chipping quality of potatoes.

4. The committee suggests to every grower contemplating signing a contract that he know the reputation of the person or company with whom he proposes to sign a contract, and act accordingly.

5. The committee suggests that growers give consideration to including contract provisions which specify the time and rate of delivery, with a sliding scale of prices to cover higher costs later in the season, and different qualities.

6. The committee recommends that all processing potato growers keep records so as to know their cost of production, and then not contract at a price below that cost of production.

7. The committee suggests that growers should not overlook the potential outlet for table stock, and perhaps give consideration to growing some of their processing potatoes for the open market.

8. The committee recommends that growers give consideration to having a provision in the contract which states **how** and **when** the buyer will make payment for potatoes purchased and received.

Onion Tipburn

Onions and thunderstorms — where is the connection? Just this: researchers at the University of Wisconsin have pinned down the fact that a thunderstorm causes an excessive concentration of ozone in the air — and ozone causes tipburn.

Tobacco growers in the Connecticut Valley have had the same problem with "tobacco fleck"; in fact, it was this that caused ozone to be suspect at Wisconsin.

The next step, of course, is how to resist the effects of the ozone during thunderstorms — but it's going to take a long time.

The Song of the Lazy Farmer

My neighbor thinks that he is great because he's always up to date; he takes on ev'ry farming fad no matter if it's good or bad. He's got his pigs on slotted floors, he never lets them out-of-doors; each sow is squeezed into a crate, he markets hogs at lighter weight; he dumps manure in a lagoon, if you're downwind you're sure to swoon. But silly as those things may be I almost blew my top when he rushed over here to tell me how the experts all are saying now that liquid feeding is the thing for raising better hogs, by jing.

Boy, that is really something new; I'd like to meet the big brains who are so smart that they can devise a way to revolutionize our methods so astoundingly, they all deserve a prize, by gee. But while they put their medals on, perhaps I also ought to don some pretty ribbons that would show that I was smart enough to know 'bout liquid feed before those boys were old enough to play with toys. For sixty years I've fed that way to fatten hogs so they would pay; the experts don't give me much thrill just 'cause they've reinvented swill.



American Agriculturist, May, 1964

FARM DOLLAR GUIDE

VISITS TO FARMS and with dairymen bring the following conclusions: (1) pastures are rapidly on the way out; (2) silage-corn or grass-is fed more in summer, replacing greenchop; (3) free choice stalls are gaining, at the expense of pen stables, and perhaps replacing stanchions; (4) there is some indication that dairymen are feeding more purchased protein than necessary in light of early-cut hay and more legumes. One way to cut cost of purchased protein is use of urea. WARNING: study its proper use, especially thorough mixing.

In at least some Northeast areas, EGG PRODUCTION IS COMING BACK, not in terms of numbers of poultrymen but in terms of hens - more cage houses with at least 10,000 layers per farm. This keeps one man busy, with some extra help to clean and pack eggs. An occasional dairyman may be lacking land for more cows, and with extra help is adding 10,000 hens in cages. For the foreseeable future, egg profits will depend on a big volume at a small profit per dozen, so management will make the difference between profit and loss.

POSSIBLE ACREAGE QUOTAS on potatoes are again in the news! Bill in Congress provides quotas and penalties but no supports. If passed and signed, potato growers could still repudiate controls in a referendum.

American Agricultural Marketing Association PREDICTS GOOD YEAR FOR TOMATOES FOR PROCESSING. Reasons: tomato juice consumption is up 20%; stocks of canned tomatoes low; '63 tomato production for processing 24% below '62.

Sooner or later, it appears that MOST MILK IN NORTHEAST WILL BE COOLED IN BULK TANKS, and that milk cans will be obsolete. If you intend to stay in dairying on a profitable basis, give some thought to when and how you will install a bulk tank.

PERSISTENT INSECTICIDES, such as the chlorinated hydrocarbons, are being replaced by less persistent materials because of problems with residue on harvested crops. Endrin, a prime example -- has been taken off lists of materials recommended for crucifers and fruit. Be prepared to spray more often.

LEAD FEEDING recommended by A. M. Smith of the University of Vermont calls for 15 to 20 pounds of grain per cow per day for two to three weeks before calving. He follows this up with challenge feeding by recommending that the producing cow receive additional grain as long as a pound of grain will increase milk flow by two pounds.

WASHING EGGS with water containing more than 1.5 parts per million of iron can greatly increase egg deterioration rate. Certain trace minerals, including iron, are necessary for growth of bacteria. A water softener is one way to tackle this problem.

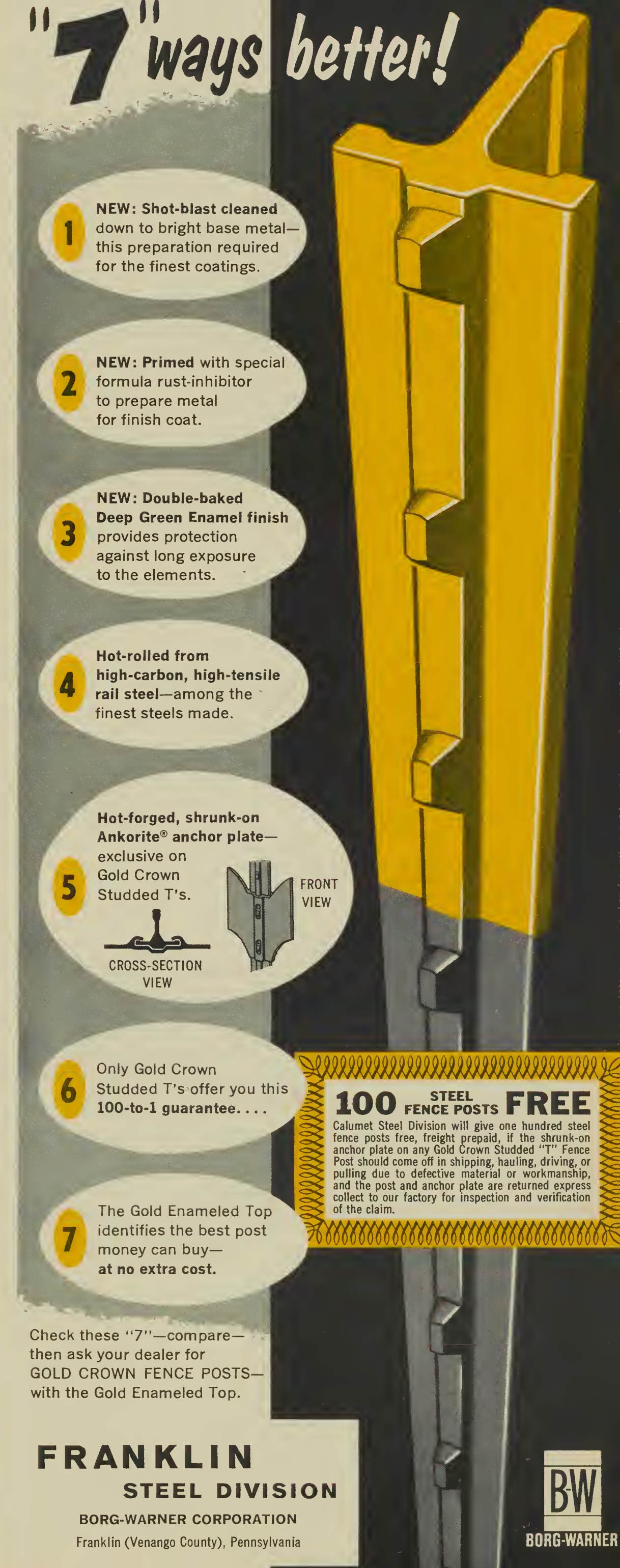
STOCKS OF POTATOES in Northeast storage have been running below last year, and prices reported as 10 to 25 cents above year ago. APPLES in U. S. storage have run above last year, with most of excess in State of Washington.

HOG RAISERS INDICATE INTENTION TO HAVE FEWER SOWS FARROW, therefore '63 pork prices likely to average higher than '63. The '64 TURKEY crop is expected to be 2% to 4% bigger than the 93.4 million turkeys grown in '63. But prices are predicted as about same as '63.

INSECTICIDE RESIDUES are being policed by the Food and Drug Administration, with particular emphasis on DDT. At least one New York State dairyman is reported to have been shut off from delivering his milk already. This insecticide can give trouble for long periods because it is stored in the fatty tissues of the dairy cow. Most common source of contamination is the use of DDT-treated sweet corn for silage. Sometimes it gets in the milk from being used as an insecticide in the barn.

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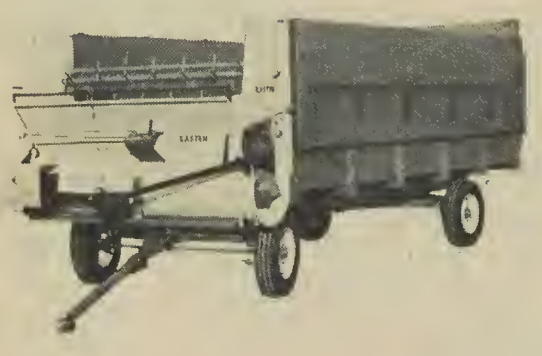
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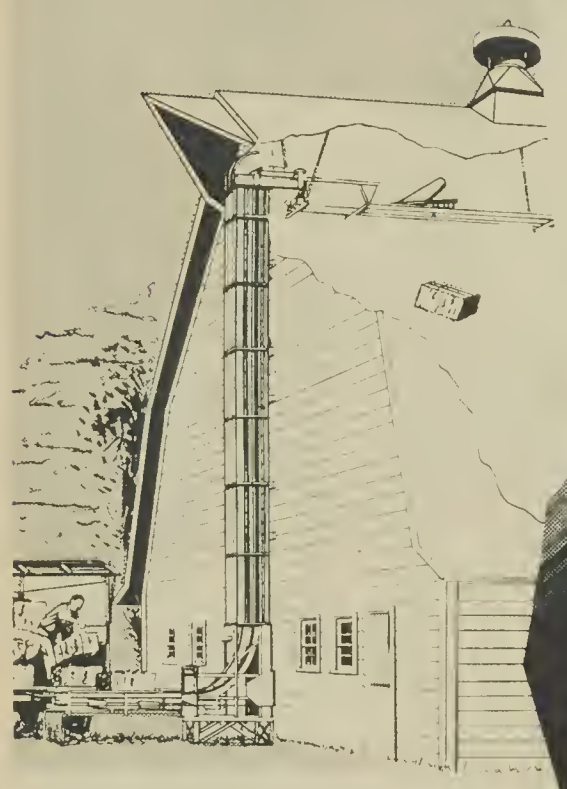
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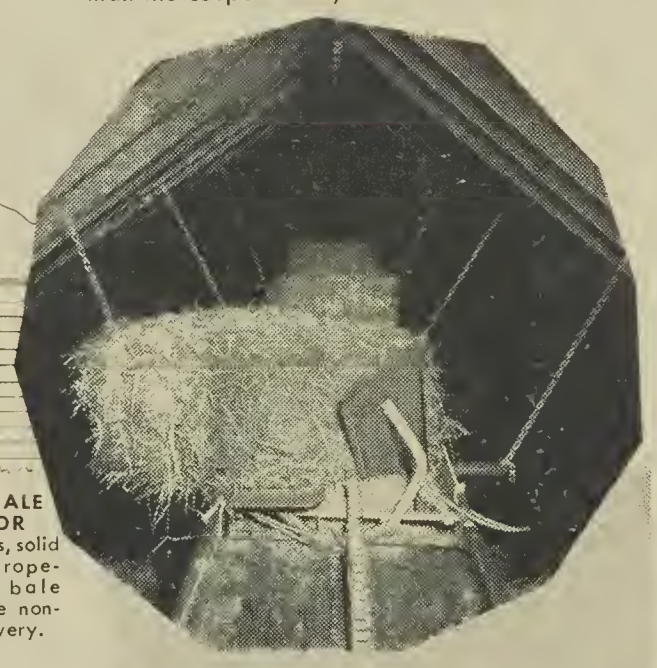
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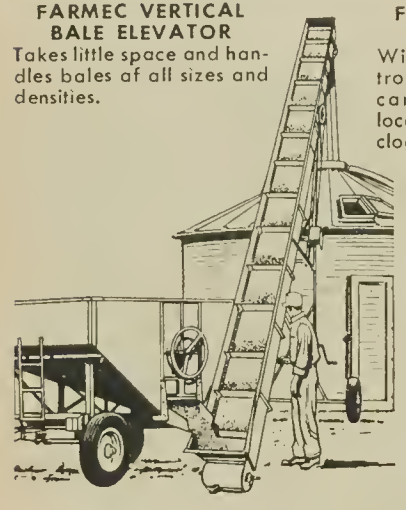
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Norman Hudnett (left) manager of the Cooperative Farm Credit Association of Moorestown, joins Joseph (center) and Richard Battaglia in front of the White Horse Farm sales stand.

PEACHES AND PROFIT

by James Bodurtha

JOSEPH BATTAGLIA is a modest man. He gives to others much of the credit for most of the achievements at his and brother Richard's fine 240-acre Hammonton, New Jersey, farm. For example: "Much of the credit for our progress should go to my wife," Joe insists. Once a beautician, it was she who as an experienced businesswoman saw the sales potential of a retail outlet for produce along busy White Horse Pike. Twenty baskets of peaches with which she market-tested the site in 1946 went "in no time at all"—and at the retail price of $2.00. just double the highest wholesale bid.

In the 18 years since, the sales stand has grown into an impressive roadside structure. It houses a refrigerated 10,000-bushel apple storage room, a 15,000-bushel heated sweet potato storage space, a 5,000-bushel room for peaches, a peach washer, hydro-cooler, an efficient office — and even an apple cider press. The front, along the Pike, is in attractive natural wood. "It's a lot of work," Battaglia acknowledges, but his smile tells you he likes the results.
results.

Brother Develops Ideas

It was Joe's younger brother, Richard, who conceived the idea of saving mice-girdled apple trees by bridge-grafting onto them four or five young apple whips planted around the trunks in spring. At a cost of only $5.00 or so, the novel method saved trees worth perhaps $300 apiece.

It was Dick, too, who began chemical control of vegetation about apple trees to help prevent recurrence of the mouse attacks. The smart young horticulturist applied 15 pounds of dalapon and four pounds of simazine in 40 gallons of water per acre in three-foot strips along the rows of trees. It's a one-man tractor job with the efficient Battaglia-designed spray boom. "Very encouraging" Joe terms the results of the first three years.

Simazine herbicide at the rate of two pounds per acre is used around young trees. "I am very pleased with chemical control in peaches, too," he adds, "and I think we're even going to weed sweet potatoes by chemicals."

About 75 percent of the apple orchard soil remains heavily sodded in ladino clover and grass.

Irrigation a Necessity

Joe's father was born in Italy, and farmed in Hammonton from 1913 until 1938, when Joe took over. "My Dad originated irrigation in this area in 1934 and 1935," says Joe. The simple flooding method then employed has since evolved into a complex pump and gun-spray system that is counted on annually to save or improve the 135-acre peach crop, 50 acres of Jersey Orange dry white and Centennial yam-type sweet potatoes, plus plums, strawberries, and tomatoes. "Without water, we'd be licked," Joe observes.

The water comes from a stream dammed into a pond that also provides water for pesticide sprays. "We keep going constantly on spraying," says Joe. Each orchard block receives protection about once every week.

The Battaglias do not put on

(Continued on next page)



Joe Battaglia likes the results of chemical weed control; note untreated area around base of tree.

water to control soil erosion by wind in spring and early summer; windbreak hedgerows of now quite tall privets have virtually eliminated the need. "You really can't afford water to combat wind," they assert. "We use irrigation just to supply water for crops." While 27 to 28 degree temperatures injured some peach buds in May, 1963, the Battaglias also find that using the irrigation system against frost threats is not normally warranted.

Personal Credit

One thing Joe Battaglia does take credit for personally is close planting of peaches. "Our system is different than that of most farmers," he says. Mike Palmieri of Hammonton describes Battaglia as definitely the pioneer. Joe has cut the distance between trees within the rows spaced 24 feet apart about in half — to a spacing of 12 to 15 feet. By this close planting he almost doubles crop volume over the old 24 x 24-foot spacing. "We like yield per acre," he explains. Nearly 1,500 Redhaven and Sunhaven trees now stand 15 x 20 feet in one 10-acre block.

The close-planting idea was probably derived from successful interplanting of apples with peaches. Peaches attain prime production at four to eight years. Even though at White Horse Farm one block of Sunhighs and Triogems is producing profitably 22 years after planting, many orchards last for only 10 to 12 years. Interplanted peaches, while providing an intermediate paying crop, can generally be economically removed before apples come into full production.

"Jay Dee Bee" Quality

Battaglia initially thought that alternate trees in the close-planted peach orchards would have to be removed to ensure size and quality of fruit. But this has not been so. The peaches have proved highly acceptable for marketing under Battaglias' "Jay Dee Bee" brand. The only extra costs in close planting are for the extra trees, fertilizer, pruning and water. "Close-planted peaches really have to be irrigated!" Joe declares.

New peach trees are set out in spring to avoid winter damage. The two brothers turned under 40 acres of sweet corn and sudan grass in 1963 to build soil organic content and water-holding capacity.

Peaches are the No. 1 crop at the farm. "We've increased our peach acreage tremendously," Joe says, "and Blake is our best crop." They try, however, to have fresh peaches for retail sale at the market from about July 4 to late September — and that means a number of varieties. Redwin leads off the season about June 25. A quite early variety discovered and developed at White Horse Farm by the Battaglias, it is widely grown in the South. "We try to spread the crop out to have a steady supply clear through and to utilize labor effectively." Elbertas? "Believe it or not, we still have a few," Joe says. The Rio-Oso Gem variety winds up the season about the 20th of September.

Crop Concentration

"We did grow a greater variety of crops once," Battaglia states. "Now we are concentrating on fewer and trying to better quality and yield as we go along." They once grew a lot of tomatoes; but these interfered with the peach harvest, and now tomatoes are limited to about an acre of the high-quality 1350 staked-type for sale at the market stand. Peppers have been cut back to just enough for retail needs. Even the sweet potato acreage has been reduced. "The South is giving us lots of competition in these," Joe explains.

The Battaglias are phasing out plums and replacing them with blight-resistant pears and more peaches. Apples still stand strong in White Horse plans. The brothers are considering construction of controlled atmosphere storage for this fruit; their chief variety is Red Delicious.

"A Penny Saved"

"It's harder to make a profit farming today than it was ten years ago," Joe Battaglia remarks. Vice president of the Moorestown Production Credit Association, he praises the role of cooperative farm credit in the family success.

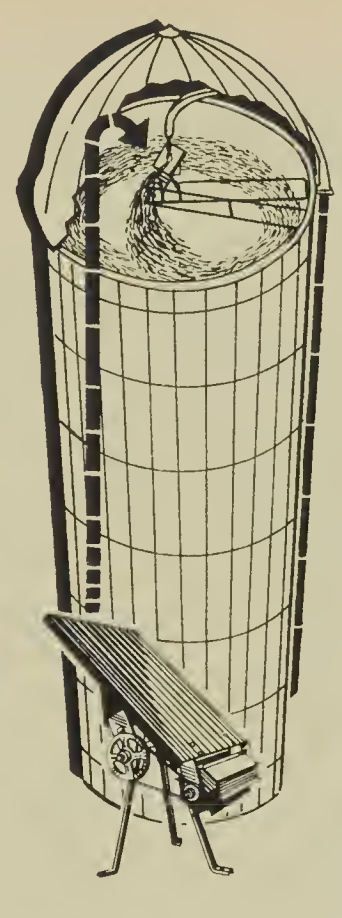
Looking at the numerous production-marketing mechanical devices installed at White Horse Farm, Norman Hudnett, manager of the Cooperative Farm Credit Association at Moorestown, observes: "One reason for Battaglias' modern farming success is simply very hard work. They've always been outstanding managers." Then he added: "Joe is a mechanical genius!" To this Joe protested: "No. We just like to save dough! Our margin is not only in selling but in buying. Save one percent here, two percent there — make cash deals. You've got to be alert today to make a profit in farming!"

FARM VACATIONS

If you have been considering summer guests at your farm, write for the free brochure, "Questions and Answers on Farm Vacations," to Farm Vacations, 36 East 57th Street, New York, N. Y., 10022.

The brochure explains how to get started in this kind of project, and also how to get your name and farm listed in the 1964 Farm Vacation Guide which will be published in May. There is a charge for farm listings, based on the number of guest rooms available and the amount of advertising space taken. A copy of the Guide may be ordered for $1.00 from the Farm Vacation organization.

Even if you don't want to become vacation hosts, you might be intrigued with the idea of becoming a farm guest yourself in some other part of the country or in Canada.



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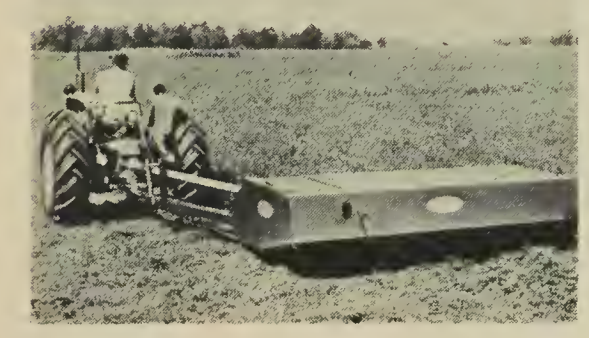
A new auger header introduced by New Holland Machine Company, New Holland, Pennsylvania, gives farmers a new way of customizing their Model 905 Speedrower to suit the farmer's individual needs. Among the many features of this self-propelled windrower are an exclusive long 3-3/8" sickle stroke and a new oil-sealed transmission.

The Portland Cement Association, Department AA, 33 West Grand Avenue, Chicago, Illinois, has available a 48-page booklet entitled "Concrete Improvements for Farm and Ranch." This illustrated booklet covers such projects as making concrete floors, concrete feed bunks, dipping vats, loading chutes, water troughs, fence posts, vertical silos, and many others. A copy may be obtained free by writing to the Portland Cement Association at the above address.

A specially-designed pig-treating apron is now available from the G. & B. Distributing Co., 1321 Eight Avenue, Worthington, Minnesota. It consists of a sturdy, rubberized nylon fabric apron which fastens at the wearer's waist and also behind the knees. A removable cone-shaped "funnel" or "pail" is securely affixed to the apron. The cone holds the baby pig securely so that cutting needle teeth, vaccinations, iron shots, oral medication or castration can be done in a matter of seconds by one person.

The Gandy Company of Owatonna, Minnesota, has introduced a new single, heavy-duty "Rooster Wheel Drive" to replace the double drive formerly required on the Gandy Disk-Mounted granular chemical applicator. The new drive employs heavy metal cross bars on the "Rooster Wheel," in place of expanded metalmesh, for positive traction under the most difficult soil conditions. Gandy Disk-Mounted applicators are available in 8, 10, 12, and 14 foot widths.

An all-new 7 foot cut, flair mower-conditioner that features non-stop, non-plug operation is the latest addition to the New Idea Farm Equipment Company, Coldwater, Ohio, haytool line. The new machine does the work of a mower and conditioner and can windrow crops as well.





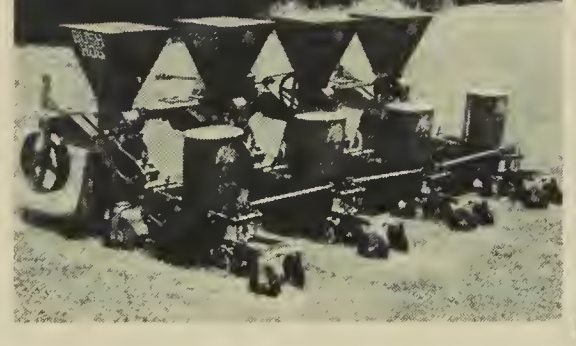
A new development which will increase the amount of grain that can be harvested without increasing the overall size of combines has been announced by Deere & Company, 3300 River Drive, Moline, Illinois. With the new cell-type grate, which replaces the conventional finger grate, the cross bars accomplish more separation of grain before material ever reaches the walker area of the combine. It also breaks up chaff pockets making more efficient separation when material does reach the straw walkers. Shown above is the 95 Self-Propelled.

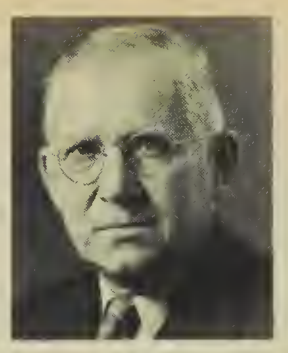
The International Harvester Company, 180 North Michigan Avenue, Chicago, Illinois, recently announced the new model 46 Disk Harrow, a wheel-controlled unit that provides precise depth adjustments. Available in four sizes (7'10", 11'6 , 12'9", and 14'), this harrow is equipped with a cushion-spring self-leveling hitch, and has a torsion frame. Triple-sealed regreasable gang bearings are self-aligning in the field, assuring exceptionally long bearing life.

The new Bristol Strap-On Milking Stool, available from Bristol Products Inc., Shelton, Connecticut, allows the dairy farmer to sit to prepare udders, apply and remove milking machine. The molded wooden seat always goes with you to give ever-ready support. It is simple to put on and take off and easily adjusted.

A low-cost Model EL-1 electric agitator for chemical sprayer tanks has been introduced by Hanson Equipment Company, Box 270, Beloit, Wisconsin. It can be adapted to any sprayer tank and keeps chemicals agitated by recirculating the liquid at a rate of 750 gallons per hour. Operated electrically, the agitator can be connected directly to the tractor power system, and is available for either 6 or 12 volt systems.

Varitiller, manufactured by Bush Hog, Inc., Selma, Alabama, is a mulch tillage tool for once-over row-bed preparation and mulch-planting in one operation. Deep tillage Varitiller subsoils 10-14" below soil surface and 6-10" below seed bed, opens furrows, applies fumigants and dry fertilizers in 1, 2, 3 bands from shallow to deep, plants the crop, closes the furrows and sweeps the middles. It is available in 1 to 4-row models with 1, 2, and 3 point hitches.





FARMLAND ASSESSMENT

by Amos Kirby
New Jersey Editor

THE FARMLAND assessment legislation is on its way to become a reality. On April 13, with the blessing of Governor Hughes' special committee, a bill co-sponsored by Senators Waddington and Dumont started through the Legislature. With both political parties joining, it should have good sailing.

The measure provides for land being assessed for tax purposes at its productivity level. There has been some objection, largely from landowners, who are fearful that the Highway Commission might require the land to be paid for on the basis on which it is assessed. American Agriculturist has been informed that it is not mandatory to have it appraised for purchase by a public agency on the basis of the value of the crops produced.

The Labor Picture

The labor conference held in Trenton April 1, centered on the greater use of day-haul workers from nearby cities, such as Philadelphia and Chester in Pennsylvania, Camden and Bridgeton in South Jersey, indicates that on a national basis there is a diminishing supply of workers to harvest crops.

I have discussed the day-haul situation with representatives of the New Jersey Farm Labor Placement Service, and have come to the conclusion that there is a limit to the number of workers who can be recruited from the unemployed ranks in our large cities.

Puerto Rican — From present indications there will be sufficient workers from Puerto Rico for the 1964 season. But from that Island comes word that this supply also has its limitations. Carleton Heritage, president of the New Jersey Farm Bureau, says that he found men working in Puerto Rican hotels who had worked on farms in South Jersey but were not coming back. Southern crews who move north with the harvest season to pick special crops show no signs of increasing.

Another Look — What leads me to write about this situation is the accumulation of farm labor reports from California and Texas. We have been informed that California will feel the pinch of a labor shortage next year when the Braceros from Mexico will be eliminated. A report from Texas is much the same, except that they are deeply concerned because mid-continent states are drawing upon their labor supplies.

Milk Prices

The minimum consumer prices on milk that went into effect April 1 reflect the distribution costs and profits in the recent dealer cost survey. During the past thirty days (April) the minimum price on milk purchased at stores in the fourteen northern counties has been 24 cents a quart, 43 cents a half-gallon, and 80 cents a gallon. In South Jersey the out-of-store minimums are 23.4 cents a quart, 42 cents a half-gallon, 78 cents a gallon. Minimums for home-delivered milk in both areas will be higher than store price by three cents in quarts, 12 cents in half-gallon and gallon containers.

Here and There

Farm tractor owners can give credit to the Farm Bureau for having the Motor Vehicle Department change its mind regarding the annual license fee. The Department had insisted that the $1 license allowed for trucks did not apply to tractors, and insisted on payment of a $3 fee. Due to some good cooperation with Senator Weber of Cumberland County, the Motor Vehicle Department has authorized the issuance of the $1 fee for tractors.

Approved — Dr. Frank App's program (discussed last month) for the establishment of a vegetable research center in South Jersey has been approved by the Gloucester County Board of Agriculture.

Change — The New Jersey State Horticultural Society announces that its annual meeting will be held at Cherry Hill Inn, near Haddonfield instead of in Atlantic City. The dates have been changed from the first week in December to January 6-8, 1965.

Purely Personal

Meet Dr. Frank Kingsbury, Dunellen, the new Extension poultry specialist at Rutgers. Dr. Kingsbury comes from Merck & Company, and has been in poultry health work since 1957.

Processing Crops — Francis Raymaley, Director of Markets, State Department of Agriculture, announces the following members of his committee: Dr. George Luke, economist, Rutgers; John MacLeod, Cape May county agricultural agent, production; Robert Lore, P. J. Ritter Co., Bridgeton, marketing and distribution; William Guthrie, Seabrook Farms, Bridgeton, labor; Mark Ewing, Atlantic City Electric Co., business climate; Herbert Lowe, Elmer, credit and capitalization; and Dr. W. A. Maclinn, specialist in food science, Rutgers.

Honored — Robert Simpkins, Mercer County dairy and turkey farmer, is one of eight public-spirited men to receive national recognition as 4-H Club alumni. Bob has been a very good friend of the writer, and American Agriculturist is happy to extend its congratulations to him.



Sunbathing on famous Waikiki Beach with Diamond Head and the Moana Hotel in background.

TWO HAWIIAN HOLIDAYS!

This year American Agriculturist is offering you two wonderful fall vacations in Hawaii, with a choice of traveling to and from the Islands by train and steamship or of going all the way by air. Either tour is delightful, for both feature almost identical schedules for the time spent in Hawaii itself. The main difference is that the steamship tour gives you a full month's vacation, while the air tour is of course shorter — just a little more than two weeks in length.

Any trip to these fascinating South Sea Islands, when it's arranged by the Travel Service Bureau of Needham, Mass., and in company with a congenial American Agriculturist party, is bound to be perfect.

Steamship Tour

The dates for the steamship tour are September 1 — October 1. We will travel on two of the world's finest trains, the famed California Zephyr and the City of Los Angeles, and on the luxurious cruise ship, the SS Lurline. Going westward, we'll thrill to the magnificent panoramas of the Colorado Rockies and the incomparable Feather River Canyon, winding its way through the high Sierras. Sightseeing in both San Francisco and Los Angeles is scheduled, with visits to Marineland and Disneyland.

On our Pacific cruise, we will have four delightful days of smooth sailing and fun aboard ship each way. The SS Lurline is truly a beautiful ship, first class throughout, and with spacious decks, swimming pool, commodious lounges, and attractively furnished staterooms. And the meals are world renowned!

To Hawaii by Air

Our air tour will leave eastern points the morning of October 10, flying to Chicago and continuing to San Francisco. At noon the following day, we'll be in Honolulu for lunch. This tour party will leave Hawaii on October 25, spend the night in Los Angeles, and fly home the next morning.

Both tour groups will visit the four most famous islands — Oahu, Maui, Hawaii, and Kauai — and travel from one island to another by air. Here, the only difference in the two schedules is that the air tour will be in Hawaii for the Aloha Week celebrations and will spend the whole week in Waikiki. There will be special pageants each evening, with the gala Aloha Week parade the last feature of our visit.

Following is a brief description of just a few of the many things we'll see on both of these Hawaiian vacations.

Maui

From Honolulu, we go to Maui, the "Valley Isle," which offers ever-changing views of picturesque tropical life. Whispering in the breeze on the lower hills and plains are field upon field of sugar cane, while only a few miles away is the dormant volcano, Haleakala, with a crater so large it could swallow New York City.

Hawaii

Our next destination is Hawaii, largest of the islands. Here we will visit Hilo, the orchid capital, and Hawaii National Park with its giant fern forests. Enroute to Kona on the other side of the island, we'll see Akaka Falls, higher than Niagara, and pass through the vast Parker Ranch, one of the largest in the world, with 300,000 acres, 35,000 head of cattle, and 9,000 sheep.

Kauai

The "Garden Isle" of Kauai is next, and here we probably come closest to our dreams of an island paradise. Kauai's primitive, untainted loveliness and breathtaking scenery will leave you spellbound. Waimea Canyon, Napoli Cliffs, tranquil waterfalls, hushed grottos, and the lush green Hanalei Valley are but a few of the enthralling sights on this exquisite isle.

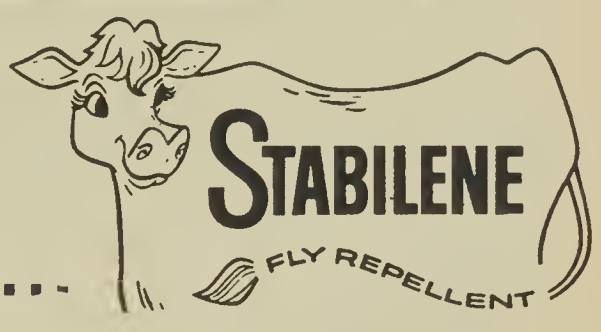
Oahu

Our last island is Oahu, best known of the chain, and our hotel is on famous Waikiki Beach. We'll spend one full day taking a circle tour of Oahu and another afternoon for a cruise of Pearl Harbor. There'll be time for sun tanning,

(Continued on page 36)



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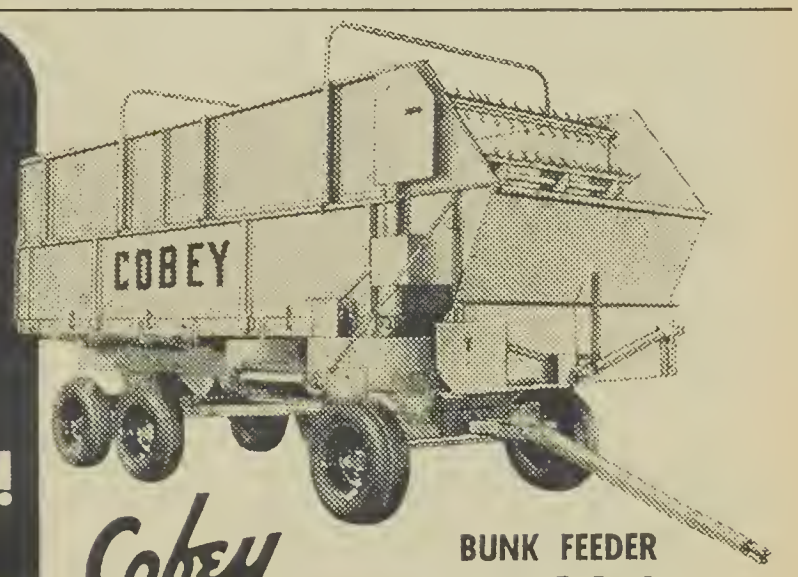
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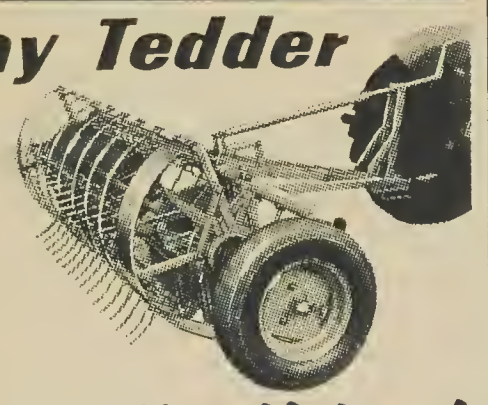
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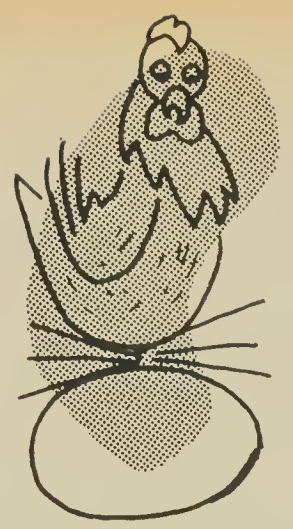


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EGGS ON A FIVE-YEAR PLAN

The Storm Clouds for Egg Producers are Moving In

by Johnny Huttar

I HATE TO report anything pessimistic. It goes against my nature. And when a "Five-year Plan" is mentioned, it's even less palatable, because it smacks of some Communist propaganda program. But maybe there's a little good to come along with the "ill wind." I'll try to find it.

Looking over some egg price records, I find that we had a big dip in egg prices in 1954 and again in 1959. Things are pointing that way again in 1964. This is what I mean by the 5-year plan. Let's see what may be back of the present storm clouds.

Eyes South!

If you've been following the reports in poultry magazines and papers you know that poultry production has been moving more and more into the South. First it was broilers, and then layers followed. I have made several tours through most of the principal producing states down yonder in the last few years. I made one in February of this year. Here's what the Southerners tell me.

They say their acreages of cotton, tobacco and peanuts have been cut back so much by government supply management programs that they had to find other sources of farm income. As early as the end of World War II they decided that broiler production was a good bet. They went into it in a king-size way. Nearly 70 percent of all the broilers grown in the country are now produced in the states south of Virginia and across the Gulf of Mexico.

Broiler prices began to slip badly in 1953 and continued on down until, by 1958, they got below the cost of production for a large number of growers. This eas the year the egg boom started in these heavy broiler-producing states. With production increasing mildly in other commercial egg areas, like our Northeast and the Midwest, this Southern spurt was the straw that broke the price of eggs.

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There have been two more bad broiler price years since then — 1961 and 1963. Couple this with pretty good egg prices for the past four years — 1960 through 1963 — and you have a mushrooming expansion of egg production in the making.

A Report

In my Southern tour this year, I stopped to visit poultrymen, hatcherymen, feedmen, co-ops and college people in eight states. The 46 individuals I visited owned or controlled 4,518,500 layers and produced 3,120,000 started pullets for sale. Let me condense my report of what I saw and heard, and give you the picture.

Where I mention egg contracting, it means about the same as what's been going on in broilers for years. It means that a feed company, a hatchery, or even a large poultryman gets farmers to build hen houses and keep layers. Banks loan the money for capital construction. The contractor supplies the pullets, the feed, the medication, and well-trained supervision. He takes the eggs produced and markets them. At the end of the year he takes the hens and markets them too.

The farmer supplies his labor, caring for the layers, the house, and all equipment, including a mechanically-cooled egg room, litter, electricity and water. The contractor pays the farmer on an agreed scale per dozen eggs produced. He usually throws in a bonus for high production, low feed conversion, and low mortality. It all amounts to 4½ to 5 cents for every dozen eggs produced.

Now here's the summary:

Virginia. No significant layer expansion or contracton. Very little contract egg production.

North Carolina. Continued moderate expansion of egg production. Very little contract production; eggs have paid well for the past four years, so independents are expanding from 5,000 to 10,000; from 10,000 to 20,000; and a few on up to 50,000 to 100,000.

Georgia. Some conversion of broiler contracting to egg contracting; existing poultrymen increasing size considerably.

Florida. An egg production boom here. Most of it is in feed company-owned farms and contract production. Some independent producers are also expanding. Florida is now an egg-exporting state.

Alabama. Cutting back on broiler production; expanding rapidly in egg production. Most of expansion is by egg-contracting.

Mississippi. Continued sizeable expansion of egg production, practically all by egg-contracting; it has been profitable for the con-

(Continued on opposite page)

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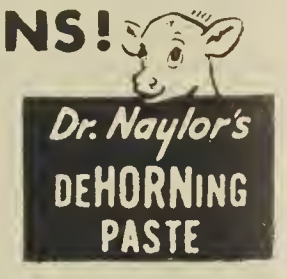
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tractors, and the growers are happy. I saw one large new farm of 1 million hens — half completed; balance will be finished this year.

Arkansas. Arkansas Valley Industries, Inc. (stock sold to general public) is an agglomeration of 21 feed, hatchery and processing businesses. They have been mostly in broiler contracting. This has been unprofitable, and they are starting to diversify into egg contracting. They increased from 50,000 to 300,000 in the past two years, and plan to go much farther. Not much independent egg production here.

Ohio. No significant change in hen numbers this year. Small and inefficient ones dropping out; others expanding. Very little egg contracting.

Over-all. The area I covered on this trip has seen at least three good profit years in a row. This has stimulated a considerable amount of expansion. Much of this has been through a program of egg contracting, similar to the familiar broiler integration.

The surplus is growing, and more eggs will appear in our northeastern markets. The integrators I talked with all seemed to be a little apprehensive about this way of producing eggs. They seem to be keenly aware of what it did to broilers. Each one hopes no one else is expanding like he is.

Housing, Management, Costs

Housing. In the southernmost parts of the area covered, extremely inexpensive houses are the new and common thing. The cheapest is the California-type cage operation. This includes 2 rows of single-tier cages with a 30-inch cement walk between and a solid roof mounted on poles overhead. This averages to cost 50 to 70 cents per hen, including everything that goes with the production of eggs.

As one moves northward, the houses provide increasing protection from the elements in several steps:

(a) Pole house, uninsulated roof, sides open most of time but covered with a polyethylene film in the coldest weather.

(b) Same as (a) but roof insulated with 1 to 2 inches of insulation.

(c) Same as (b) except that north side may be partly boarded up.

(d) Windowless, fan-ventilated houses with about 2 inches of insulation in the walls and under roof. These houses are constructed so as to open sides considerably during warm weather.

All these have dirt floors, egg rooms, bulk bins, mostly mechanical feeders; and cost, per hen, about as follows: birds housed at 2 to 3 square feet each — (a) $1.50 to $2.00; (b) $1.75 to $2.25; (c) $2.00 to $2.50; (d) $2.50 to $3.25.

Feed. Commercial laying rations sell for $72 to $78 per ton in all but Florida, where they are about $5 higher. This is delivered for cash to the farms.

Most of the integrators, and some large flock owners, have their own feed mills. In early February they figured the costs of the ingredients for the laying rations at $60 to $62 per ton. They calculate their manufacturing costs at $4 to $5 a ton, and in this they include delivering the feed for their own hen houses or to nearby contract growers' farms. I think they are a little low in figuring this.

Costs of Production. Based on the most reliable figures I could obtain, production costs of the most efficient 50 percent of all producers (except Florida) are as follows:

(a) Cost of producing a 20-week-old pullet: $1.20 to $1.35.

(b) Cost of producing a dozen eggs: 27 to 30 cents.

About 10 percent higher in Florida.

The Storm Clouds

The South is not the only egg-producing area of the country which is expanding its layer population. We're doing quite a bit of it in parts of the Northeast. Farm surveys conducted by Extension Poultry Agent George Earl in three central New York counties in 1960 and 1963 showed an 11 percent increase in these three years.

There has been quite an expansion in southeastern New York too. Last December I spent two days in Maine, traveling with the College Extension Poultry Specialist, Harry Wheldon. I saw some expansion going on up there.

After all, has there ever been a time when three profitable years in succession did not bring on expansion? This is what brought on the price collapses of 1954 and 1959. It's human nature.

What we need now is an adjustment of supply to demand. I mean to the size of demand which pays a decent price for eggs. We got it quickly after 1954 and again after 1959. Let's hope we get it just as quickly after 1964. This would be the good out of the "ill wind." If government or too much integration doesn't interfere, I think we will.

In The Meantime

I know that many of my friends out on poultry farms are aware of all this, and are making their plans accordingly. And while I think of it, let me say this. All of the above may sound much more ominous than I honestly feel. I think there will be a real squeeze on egg producers' margins for about 12 to 15 months. I'm confident, however, that poultrymen who have their houses in order will weather the blow and the situation will again be brighter when it's over.

We need this period of correction before the production of eggs builds up to an even greater distortion in relation to demand.

Any time that lower egg prices are in sight, there are a number of things producers can do to lessen the squeeze on their incomes. I'm sure many of you, my readers, already know and do these things, but I'll just put down those which

(Continued on page 36)



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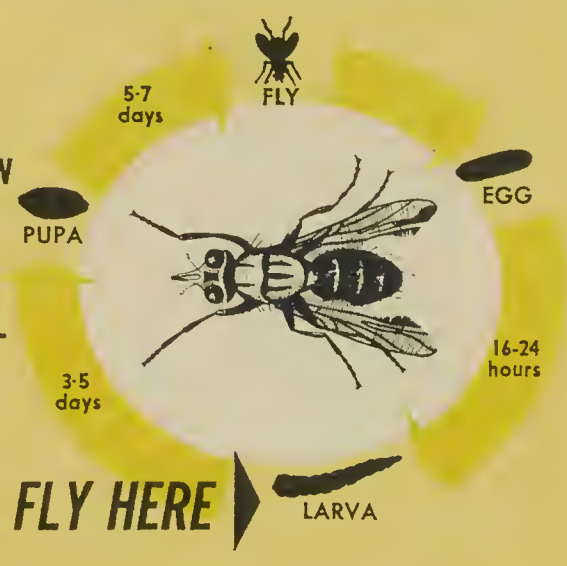
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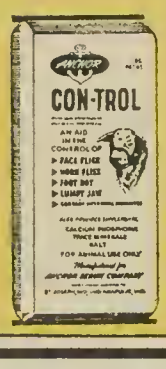
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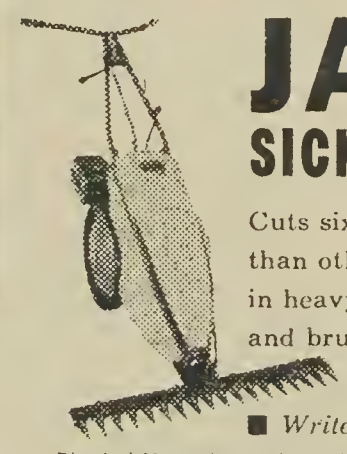
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Job	Per	Rate
Plowing		
moldboard plow	acre	$ 4.65
disk plow	acre	3.90
Disking		
tandem	acre	2.20
bush and bog	acre	2.90
Harrowing		
spike tooth	acre	1.70
spring tooth	acre	2.00
Cultivating		
sweep cultivator	acre	2.15
rotary hoe	acre	1.50
weeder	acre	1.55
Stalk cutter, power take-off	acre	2.80

Planting and Drilling

Corn planting, with fertilizer	acre	2.60
without fertilizer	acre	2.40
Drilling small grain	acre	2.50
Planting soybeans	acre	2.10
Planting potatoes	acre	5.00
Seeding alfalfa, clover, etc.	acre	2.20

Spraying and Dusting

Spraying, average cost all, (no materials)	acre	1.85
Spraying weeds with 2,4-D, (including material)	acre	2.50
Spraying fence rows, (including material)	rod	.80
Dusting, ground vegetables	acre	2.25
Spraying, ground vegetables	acre	2.10
Spraying air vegetables	acre	2.80

Hay and Silage Making

Field chop silage		
chopper and blower with:		
1 man, 2 wagons, 1 tractor	hour	11.00
2 men, 2 wagons, 2 tractors	hour	14.00
2-4 men, trucks, 2 tractors	hour	18.50
Silo filling		
upright	ton	2.25
into wagons only	hour	9.00
Mowing hay	acre	2.25
Mowing pasture	acre	2.10
Raking hay	acre	1.70
Crushing or conditioning hay	acre	2.10
Pickup baling twine	bale	.11
wire	bale	.13
Bale loader or pull wagon	bale	.08
Haul bales to barn and store	bale	.09
Haying, cut, rake, bale, store	bale	.27

Harvesting

Corn picking	acre	7.10
Corn combining	acre	9.50
Combining		
small grain	acre	6.50
soybeans	acre	6.50
seed crops, alf., etc.	acre	7.00
Crop handling		
haul crib corn	bushel	.09
dry corn	bushel	.10
shell corn	bushel	.07
shell, deliver CCC corn	bushel	.12
Dig potatoes	ton	2.00

Miscellaneous

Spreading fertilizer (no material)		
bulk dry	acre	1.80
liquid	acre	1.60
sidedressing	acre	2.50
anhydrous ammonia	acre	2.20



El Moore Farm Muriel's Angie is the new National Champion Guernsey Cow. She was named highest milk-producing Guernsey in the Junior two-year-old class. Angie's production was 17,360 lbs. of milk, 734 lbs. fat on 2X, 305 days. Left to right: NYABC Technician Douglas Jordan; owner Maynard Moore of Kent, N. Y.; and DHIA Supervisor Earl Stroyan.

BOB MARTIN — At the age of 73, Mr. C. R. (Bob) Martin died recently at his home in Kenmore, New York. He was named in 1963 "Cattleman of the Year," an annual award by the New York Beef Cattlemen's Association to persons who have made outstanding contributions to the industry. Born in Missouri, Bob spent a lifetime in the livestock business and at the time of his death was Division Manager of Producers-Empire at Lancaster and Buffalo.

Always intensely interested in young people, he worked with 4-H youth, FFA groups, and students at many academic levels. Outstanding examples of this were his work with young people at the Hamburg Fair, and the Caledonia Livestock Show.

Dairy Science Center — Ground was broken March 19 at the State University Agricultural and Technical Institute at Alfred, New York, for a new dairy science center. Included will be a stanchion-type dairy barn for 50 head of cattle, a four-cow milking parlor, a processing room for pasturization and homogenization of milk. Also in the plans are a meat inspection laboratory and classroom space for studies in animal pathology and physiology.

New Post — Lynn M. Bookhout, Erieville, New York, has been named editor of Eastern Milk Producers Magazine. Mr. Bookhout graduated from Cornell University in agriculture, has operated a dairy farm for several years, and previously was in county agricultural agent work.

Halo Blight — Because of an abnormal amount of rain, permitting a limited spread of halo blight in Idaho bean seed fields, a few lots of commercial seed shipped into New York last year contained the blight. In some instances the disease was severe enough to cause economic losses. But the chances of duplicating these weather conditions in the near future are quite remote, says the Geneva Experiment Station, and therefore the Station finds no basis at present for changing its recommendations of using Western grown disease-free seeds in New York's snap bean plantings.

Poultry Houses — To help poultrymen meet the competition with other areas of the country, Beacon Feeds, Cayuga, New York, are selling "packaged" poultry houses with the most modern and up-to-date equipment. They are available in widths from 20 feet up to 48 feet.

Dairy Festival — June 6 is the date of the annual Steuben County Dairy Festival, Bath, New York. The event is sponsored by the Steuben County Pomona Grange, with the cooperation of the Bath Chamber of Commerce. The Festival opens with a parade of floats entered by Granges and other organizations; the candidates for the title of Dairyland Sweetheart and Dairyland Prince will appear in the parade and at the grandstand in the afternoon.

Highlight of the afternoon event will be the mayors' milking contest; there will be a fine display of farm machinery and dairy exhibits. The dairies in the county will donate free milk — distributed by the Sweetheart candidates — and a banquet featuring dairy foods will be held in the evening, followed by a round and square dance.

New Director — Douglas D. Innes, a third-generation Granger from Cattaraugus, New York, has been appointed Director of Public Relations for the National Grange

SCHOLARSHIP FUND

On March 18, Burton A. Jennings, professor emeritus of agricultural engineering at Cornell University, had a fatal heart attack.

Because he was a dedicated teacher and had a genuine interest in and concern for students, his friends feel that an appropriate way to recognize his contribution to agriculture would be to establish a scholarship fund in his name for agricultural engineering students.

Contributions may be sent to the Agricultural Engineering Department, Riley-Robb Hall, Cornell University, Ithaca, New York, 14850. Checks should be made payable to Cornell University.

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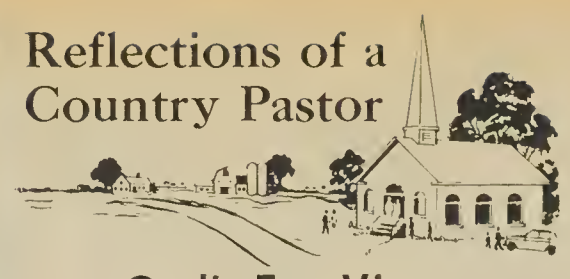
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Reflections of a Country Pastor



God's Eye View

THE EXPRESSION "bird's eye view" is well known. It is usually used to indicate covering of a large area from a great height; but not much detail is pictured. It might also include the far sight of birds like kingfishers and hawks in spotting their possible prey.

By way of contrast, let us think of "God's eye view." "He looked on His creation and called it good." His view is the large sweep which takes in all creation. He sees everything in the perspective of space and time. The grubby little details and imperfections which bother us do not disturb Him. A clear, high-ceiling plane flight gives a hint of this view.

God's eye view is also the loving look. He saw what He had made and "called it good." Comparable is the love of parents for children; the joy and pride of researchers in mechanics or chemistry when success rewards efforts; the farmer looks on a beautiful crop the same way.

And His eyes look ahead — long years — eons ahead! Why are we so impatient? Can we not cultivate the "wait on the Lord" attitude? He works while we sleep. The short objections, short tempers, quick plans of men often spoil the perfection expected. Why not try to look on all things through His eyes? Could be we would see more good! — Arthur Moody

Eggs on a five-year plan.....
(Continued from page 33)

occur to me, to check against what you plan.

On most farms with which I'm familiar, the biggest cut in costs can be made by getting better production from the hens. Here are a couple of examples: Your hens average to eat 90 lbs. of feed in a laying year. If they average to lay 18 dozen eggs each, it takes 5 lbs. of feed for each dozen. If they average 20 dozen, it takes only 4½ lbs. A half pound saved this way means nearly 2 cents a dozen.

Again, if your pullets cost you $1.80 to rear or buy, and you average to get 30 cents for each hen at the end of the laying year, your flock replacement cost is $1.50 per layer. Using the same 18 and 20 dozen production comparison, this replacement cost is almost 1 cent a dozen higher at the lower rate of lay.

It's fairly safe to say that a 10 percent increase in your average hen-housed production will cut your cost of production upward of 2½ cents a dozen, and I doubt that egg prices are going to drop that much in one year.

So this is the year to use all the know-how and help you have and can get, to keep the rate of lay high.

Feeding. I have been on many farms where I'm sure there is a half pound of feed per hen wasted. Some goes to rats, some is spilled in filling hoppers, and some is billed out because the hoppers are too full. These folks could also cut nearly 2 cents a dozen out of their costs.

Debt Load. I could mention a number of other small cuts, but I don't want to drag this out; so let me cover one more which is sometimes underestimated. I mean this thing called debt load. This is the annual payment which must be made out of the egg checks for all debts — for mortgage, hen houses, equipment, etc. These payments include those for both principal and interest.

If your annual debt load amounts to more than 60 cents a hen, you could have trouble paying it this year. In such a case, you might see if you can do some re-financing, so as to stretch out some of the short-term debts a bit.

Summing up on costs, if you'll let me mix a rural metaphor and a seafaring one, this is the year to "mend fences" and "batten down the hatches."

Income. So much good advice is constantly being handed out on better marketing that I won't spend much time repeating.

Of this I'm sure. We don't have to fear Southern competition if we sharpen up our operations by doing all the things which we already know.

Two Hawaiian Holidays
(Continued from page 31)

swimming, shopping, and just "loafing."

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WANTED Freaks, albinos, midgets, oddities. Fays, Madrid, New York.

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FREE SAMPLES OF WALLPAPER—1963-64 catalog, 99 washable patterns. Decorating suggestions and color schemes. Instruction for measuring and hanging. We pay postage. Penn Wall Paper Mills, Dept. O, Bridgeton, N.J.

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New Style for the Sandbox Set

by Alice P. Stein



Modern fabrics, simpler lines make wear, care of children's clothes easier than ever.

The author's 5-year old daughter and a group of neighborhood friends model garments made from one basic pattern. Left to right in picture are "Misty" (Marian) Stein, Joanne Willoughby, June Kinoshita, Sharon Cooper, Susan Beveridge, and Nancy Neshheim.

IF YOU have any nostalgic longings for the "good old days," don't count on the kids to share them — at least not when it comes to their clothes!

There have been times when children's clothes have had fashion without function (Remember the "Little Lord Fauntleroy" look?), and times when they've had function without much fashion, as in the early years of this century. But today, for the first time, we have children's clothes which combine good design and ease of care, and do so within the range of every budget. You don't even have to take the kids into the city to buy their seasonal wardrobes any more, for mail order houses and pattern companies are keeping pace with the finest stores.

It's been a couple of hundred years since the French philosopher, Jean Jacques Rousseau, told Marie Antoinette he thought her children would be happier if they weren't dressed like miniature adults — tight corsets, fragile silks, and all. The change was slow in coming, but finally, by the early 1900's children wore free-hanging cotton jumpers, middies, and smocks which at least had the advantage of freedom of movement and easier care, even if they were rather shapeless and lacking in style.

Our present trends began shaping up soon after World War II, when Claire McCardell, a designer who had brought about many changes in women's fashions, turned her skills to children's wear. Her easy fitting and attractive popovers were quickly adapted for little girls, and soon other prominent designers entered the field too. Their work has improved the styling of children's clothes in all price ranges without sacrificing comfort or ease of care. Extensive team-work between art and science has also been necessary.

Improved Textiles

New and improved textiles and manufacturing equipment have opened many new areas to the designer. For example, not long ago velveteen was considered a fabric to be used only for very special occasions because it spotted easily and was hard to care for. Nowadays, velveteens with their rich, jewel-like colors are used widely for little girls' clothes. New silicone and resin finishes retard wrinkling and make it possible to wipe away stains with a damp cloth.

The middie-collared dress shown on this page is an example of one design which would be really lovely in velveteen. Easy to sew, easy to put on, and appropriate for many occasions, it also would be attractive in pique, broadcloth, or other plain cottons.

Pattern 9049 is available in children's sizes 2 through 8. Send 35 cents to: American Agriculturist, Pattern Department, Box 42, Old Chelsea Station, New York 11, N. Y.

The new finishes also are being applied to many other fabrics, making them far more useful for children's wear. Party-time spills of ice cream and punch need no longer pose serious and costly dry-cleaning problems. If the fabrics have been treated for stain and soil resistance, the stains probably will wipe away with a damp cloth, and the garments will not have to be laundered so often.

Wrinkle resistant finishes radically reduce mother's ironing time, and may make it possible to get another day or so of wear from school garments before they need to be pressed. Family travel is simplified, too, because packing wrinkles vanish soon after the garments are hung up.

Vast improvements are being made in water-repellent finishes, giving a wider variety of fabrics suitable for rainwear. Special "rain coats" gradually are being replaced by attractive all-weather coats which give fuller value because they can be worn more often before the children outgrow them.

Synthetics, A Boon

Synthetic fibers, too, are aiding the work of the designer of children's clothing. Pleated skirts which once were a problem to press and an expense to send to the dry cleaners now drip dry on the family wash line, with only the need of an occasional touch-up pressing. They are made of either synthetic fibers or blends of synthetic and natural fibers which are bent permanently into pleats under heat.

These synthetic fibers are especially important in children's garments which may need to be dried quickly, such as beachwear. Nylon bathing suits, which dry in an instant on or off the child, are a real boon to summer play and excursions.

Working hand in hand with textile chemists have been the engineers who design machinery used to manufacture ready-made clothing and apply special effects such as embroidery, appliques, and smocking. The stitching is now precise and even, and approaches the look of handwork. And lower production costs have made it possible for manufacturers of modestly priced merchandise to use freely these decorative effects, which but a few years ago could be applied only to the more expensive items. Home sewing equipment has also been improved, and you can now do a greater variety of the decorative stitches right on your family sewing machine.

Pattern companies have kept pace and even added a few innovations of their own to encourage the mother who likes to sew. Patterns for children's clothes are easier to use than ever before. More information is now printed right on the pattern pieces, and instructions

(Continued on page 46)



This simple, classic A-Line sailor dress is Pattern No. 9049, available from American Agriculturist Pattern Service.

MORE CONTEST PRIZES!



We are happy to tell all those interested in the American Agriculturist — New York State Grange Coffee Cake Contest that Magic Chef, Inc., is again offering a grand prize to be awarded one of the three high state winners in next fall's finals.

This year's Magic Chef prize is their Early American Gas Range in coppertone finish and with full-width turned wood handles. Special features of the range are re-ignition top burners (one is a Magitrol thermostatic burner), AutoMagic cook-and-keep-warm oven, oven light, and a chrome broiler insert.

Also, in our April issue we neglected to tell you that this year Penick & Ford, Ltd., Inc., will again duplicate American Agriculturist cash prizes to anyone using Brer Rabbit Molasses in their winning coffee cake entries. This makes a total of $423.00 in cash that could go to state winners.

Our 1964 Yeast Coffee Cake Contest is now in full swing, and we hope you're taking part in it. Watch for announcements of the 53 county winners in future issues of American Agriculturist!

TOPS IN CROCHET



Crochet a "conversation" jacket of squares — it tops everything, goes everywhere.

A gay jacket, of crocheted squares, made one at a time — pick-up work! Pattern 7496 in sizes 32-34; 36-38.

Send TWENTY-FIVE CENTS (in coins) for Pattern 7496 to: American Agriculturist 257, Needlework Service, P.O. Box 162, Old Chelsea Station, New York 11, N. Y.

THE DANGER

By Eleanor A. Chaffee

Not in the rasping voice upon the air,
Not in the love of conquest lies the harm—
But in the complacence that we wear,
Thinking that cleverness will keep us warm
While, ailing, the will stirs feebly in its sleep,
That once was taught, "Pray You my soul to keep."

SEND FOR PREMIUM BOOK

It may seem like a long while until September 1 and New York State Exposition time, but actually it isn't a bit too early to be getting your entries ready to compete for more than $2,400 in prizes being offered in the home arts and crafts departments.

In all there are 19 different sections with a total of 51 classes open to entrants. They cover every imaginable type of needlework, machine-made garments for both children and adults, and many crafts, such as ceramics, metal work, leather craft, block printing, and stenciling.

Premium books, complete with full details and entry blanks, are now available, and Mrs. Charles A. Claridge of Manlius, Superintendent of the Home Arts and Crafts Departments, invites you to send for your copy. Write to: **Entry Department, New York State Exposition, Syracuse, New York 13209.** All entries must be in before Friday, August 7. Entry fee is 50 cents per item.

THEM HORSE AND BUGGY DAYS!.....



Come with your friend Ed Eastman on this journey to the days of his youth, when life was simple and uncomplicated.

Visit with Ed the old-time barber shop, the blacksmith's shop, the country store, and the county fair.

Visit with Ed's old friends and neighbors, like the ones you used to know.

If you are past 40, "Journey to Day Before Yesterday" will set you to "remembering when." If under 40, you will laugh at Grandpa's shenanigans.

If you would see this beautifully printed and illustrated book you would surely buy it. It contains nearly 300 pages, over 100 old-time pictures, and is chockfull of personal family stories of how folks worked, played and lived around the turn of the century.

Send check or money order for $5.95 to AMERICAN AGRICULTURIST, Department Book, Savings Bank Building, Ithaca, N. Y., and your copy will be mailed postpaid.

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

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Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

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46% of the 762,000 balers are in 7 states — Iowa, 66,000; Wisconsin, 60,500; Minnesota, 51,000; Ohio, 47,000; Illinois, 42,700; Pennsylvania, 42,000 and NEW YORK, 40,500.

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Established 1915 **Cohoes, N. Y. 12047**

A GARDEN POOL

by Nenetzin R. White

Almost any part of your garden or patio will be beautified by adding to it water in some form, and a pool is especially delightful placed in a corner or in the curve of a border. Ask yourself, "How can I use water in my garden to the best advantage — what kind of a pool or waterfall?" Whatever you decide, do something about it this spring, and you'll have it to enjoy for many years.

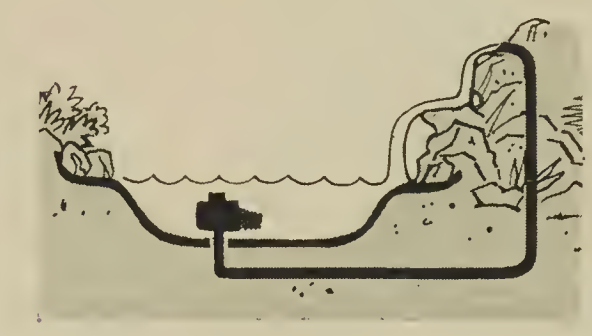
First, there is the pool placed in naturalistic surroundings, and a few aquatic plants and lilies will help blend your pool into its own background of plants. It would take far too much space for me to go into the details of pool construction in this article, and I would suggest that you check the publications of your State Agricultural Schools or consult your Extension Agent for information. I do want to mention a few pitfalls, however.

Unless a pool is ruggedly constructed to "specifications" for your area, it will crack during the winter, so be sure to have a method of drainage. If you put gravel under the pool, you can have a plug (like the one in your bathtub) to pull out in the fall. If the pool is in a high place, it can be drained with a hose, or bailed out by hand if it is small enough. However, you must provide for natural rainfall and snow drainage too.

Fiberglass pools can be made on the site with fiberglass cloth and resin. These are bedded in sand and will lend themselves to all sorts of unusual designs. Without a doubt, the easiest way to acquire a pool is to buy an already formed plastic one. These come in a variety of shapes and sizes, some with deeper pockets for lilies.

Just dig a pit, provide under drainage, put them in, fill them, and you are in business! They also come in many different colors, and some can be installed with stones over the edges so they look like a natural body of water. These plastic pools must be drained in the winter. Some are so flexible that they can be removed from the site, rolled or folded up, and stored until spring.

A "waterfall" is both a joy to behold and listen to. It isn't as difficult to acquire, either, as you might think. A re-circulating pump is installed in the bottom of your pool, with a pipe going up to the top of the waterfall where it can be concealed by stones (see illustration). This can be made to look like a natural stream of water falling down over stones into the pool.



Now, a word about proportions. A tiny pool will look out of place in a large area, so make a small, partially enclosed private spot in the garden if your pool is to be small — or develop an area off your patio. Your waterfall area and height should also be governed by the size of the body of water.

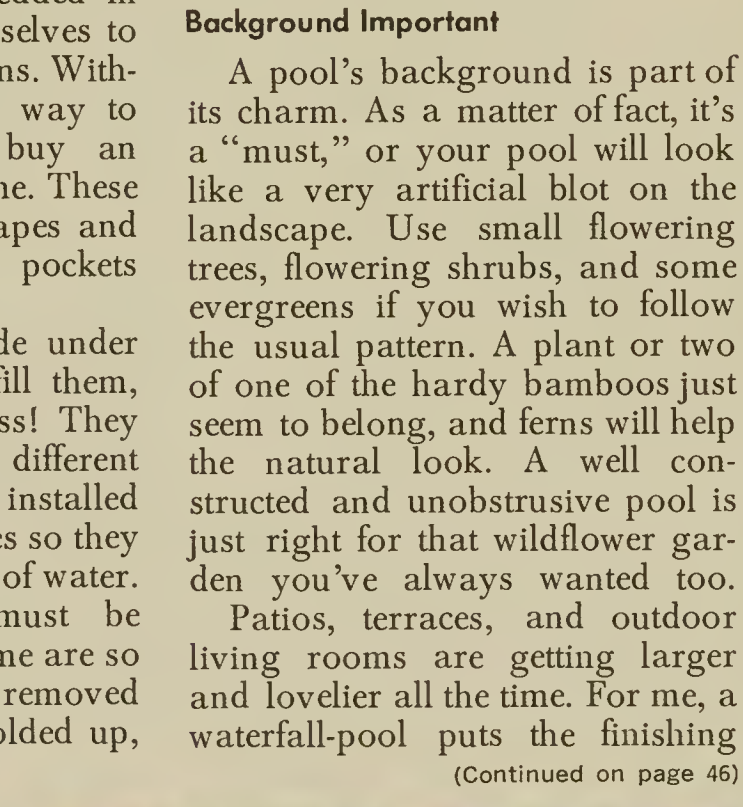
A little dappled shade, with its ever-changing shadows, adds greatly to the attractiveness of the area. It will help keep the water clear too, for intense sunlight encourages algae growth. Aquatic plants, water lilies, and goldfish can all go into your pool. Buy your acquatic plants from a specialist in that field, or perhaps your nurseryman will order them for you.

Background Important

A pool's background is part of its charm. As a matter of fact, it's a "must," or your pool will look like a very artificial blot on the landscape. Use small flowering trees, flowering shrubs, and some evergreens if you wish to follow the usual pattern. A plant or two of one of the hardy bamboos just seem to belong, and ferns will help the natural look. A well constructed and unobstrusive pool is just right for that wildflower garden you've always wanted too.

Patios, terraces, and outdoor living rooms are getting larger and lovelier all the time. For me, a waterfall-pool puts the finishing

(Continued on page 46)



A waterfall-pool like the one pictured will put a finishing touch to your outdoor living room and give you many hours of enjoyment.

Photo: Zeno Plostics Co.

The AA Clothes Line

9020. Easy lounger -- simple to sew. Printed Pattern in Half Sizes 14-1/2 - 24-1/2. Size 16-1/2 takes 3-1/4 yards 39-inch. 35 cents.

4874. Novel collar, side buttons. Printed Pattern Half Sizes 12-1/2 - 22-1/2. Size 16-1/2 takes 3-1/4 yards 35-inch fabric. 35 cents.

9400. Six-gore sundress. Printed Pattern Half Sizes 12-1/2 - 24-1/2. Size 16-1/2 takes 2-3/4 yards 45-inch fabric. 35 cents.



9318. Dress with walking pleats. Printed Pattern in Misses' Sizes 10-20. Size 16 takes 4-1/2 yards 39-inch fabric. 35 cents.

4636. Eye-catching sundress or jumper. Printed Pattern Misses' Sizes 10-18. Size 16 takes 4-7/8 yards 35-inch fabric. 35 cents.

4657. Playsuit, button-on skirt. Printed Pattern in Women's Sizes 34-48. Size 36 outfit takes 5-3/4 yards 35-inch fabric. 35 cents.

9007. Smart sundress and jacket costume. Printed Pattern in Half Sizes 14-1/2 - 24-1/2. Please see yardage in pattern. 35 cents.

PATTERNS are 35¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address, pattern size and numbers clearly.

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GOOD BAKING TO YOU



by Alberta D. Shackelton

No. 1 — Baking Secrets

EVERY GOOD cook wants to become a baking artist and create pretty and tasty "pictures" for her family and friends to enjoy. With the wealth of tested recipes and standard measuring equipment now available, even the beginner can become an expert, and the more experienced baker can create her own variations. Also, many women will have fun standardizing Grandma's recipes calling for a "pinch" of something, butter the "size of an egg," and a "scant" cup of an ingredient.

Beginning this month, we will bring you from time to time baking secrets and recipes to guarantee your success when baking quick breads, yeast bread and rolls, cookies, cakes, pastries, and "fancies."

Baking Equipment

Every homemaker spends so much time in her kitchen that she deserves good equipment. Do you have graduated measuring cups and spoons, wooden mixing spoons, spatula, rubber scraper, set of mixing bowls with sloping sides, flour sifter, pastry blender, hand rotary beater, hardwood bread board or pastry cloth, rolling pin, cooling racks, baking pans of various sizes and materials — all of good quality, easy-to-handle and easy-to-clean construction?

Steps in Baking

The first step in successful baking is to become familiar with your recipe, its ingredients and procedures. Check the following: Do you understand the terms used in the recipe and have all the listed ingredients? Is any pre-preparation necessary, like chopping nuts, cutting dried fruits, or preheating oven? Do you have the right type and size pans called for (or suitable substitutes), and do they require any special preparation? Have you arranged your ingredients and utensils for working convenience?

The second step for good results in baking is exact measuring. This is where graduated measuring cups and spoons are a must. All measurements are level. Nowadays it is a good thing to follow the individual flour manufacturer's directions as to whether or not you sift flour before measuring. Spooning flour into a cup to overflowing and then leveling is usually satisfactory. In any case, don't sift directly into a cup, and never shake a cup to level it off. Leveling of all ingredients should be done with edge of knife or spatula.

Either granulated or confectioner's sugar (the latter sieved first if necessary) is spooned lightly into cup and leveled off. Pack brown sugar firmly into cup or spoon to measure. For leavenings, salt, spices, etc., dip dry measuring spoon into container, lift out slightly heaped, and level with knife. Shortening, or butter may be spooned into a graduated measuring cup, packed firmly without bubbles, and leveled off.

Pour liquids into measuring spoon or cup — don't dip. Eggs called for are usually considered to be medium size. If you need half an egg, beat egg slightly, measure, and divide. There are about 4 tablespoons in a beaten, medium size egg. If your recipe calls for melted fat, it may be measured before or after melting. Salad oil may be used in most recipes calling for melted fat.

The third step in baking is mixing. Become familiar with the meaning of various terms, as "creaming," "folding," etc., and for top results, follow mixing directions of the recipe exactly. Here you will find the right size pottery, glass, or stainless steel mixing bowls with sloping sides, wooden spoons, and a rubber scraper of wonderful help. Soft plastic bowls may be used for almost all mixing except meringues and sponge-type cakes; egg whites do not whip well in these bowls.

The fourth step is baking the product. Here again it is important to follow recipe directions exactly, using the size and kind of pan suggested. Generally speaking, shiny pans are best for most baking. However, for a more golden-brown crust, breads and pies are best baked in pans with a dull finish. If you use a glass pan, reduce the oven temperature called for by 25°.

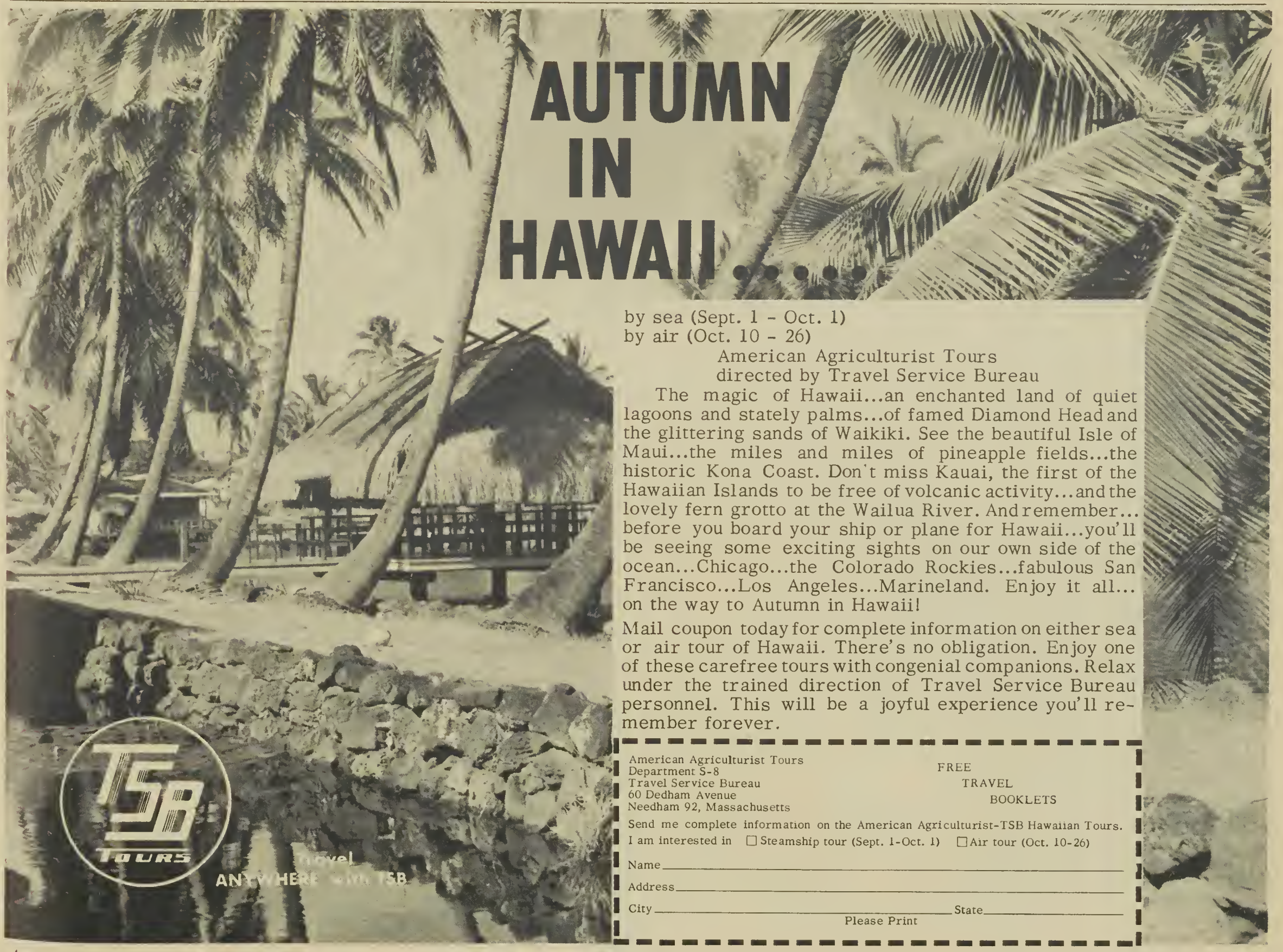
Pans for baking sponge or foam-type cakes are never greased except the jellyroll pan. (I like to keep a special tube pan which has never been greased just for sponge and angel food cakes. Grease the bottoms only of muffin pans and pans for shortening-type cakes to get a higher and level-topped product.

In making cookies, use ungreased baking sheets for rich cookies, greased sheets for less rich cookies, and greased pans for bar-type cookies. Greased pans are used for most quick and yeast breads. Pastry is baked in ungreased pans.

Place pan at or near the middle of the oven where heat is most even and away from oven walls, leaving space between each pan so heat can circulate freely. There should always be 2 inches between edge of cookie sheet and oven walls. If you need to use two racks, place pans so one is not directly over another.

Wait for the minimum baking time to elapse before opening oven

(Continued on page 46)



by sea (Sept. 1 - Oct. 1)
by air (Oct. 10 - 26)

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directed by Travel Service Bureau

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ED EASTMAN'S PAGE

MOWING MACHINES THEN AND NOW

My friend David B. Watson, traveling at Eastertime from Newington, New Hampshire to Rochester, New York to visit friends, drove to Ithaca, fifty miles out of his way, to show me a perfect working model of a mowing machine that was advertised in the June 1868 issue of American Agriculturist, almost 100 years ago. The advertisement described the mower as follows:

"A union mower and reaper combining more valuable features, and one which will better meet the wants of farmers than any machine ever invented. It has been in use for the past seven years and has proved a success. Can be worked successfully on rough and stony ground and is the most durable machine in use."

The old woodcut in the American Agriculturist advertisement showed that the machine had two wheels with lugs for ground traction, and it had a seat for the operator. The cutter bar was about 5 feet in length. Mr. Watson's model, made to scale, was an example of perfect hand skill. Pull it along the floor and the cutter knives in the bar run smoothly.

But even before the 1868 mower, farmers — tired and sick of the backbreaking job of mowing hay by hand — were tinkering, experimenting, and trying to invent a practical mowing machine.

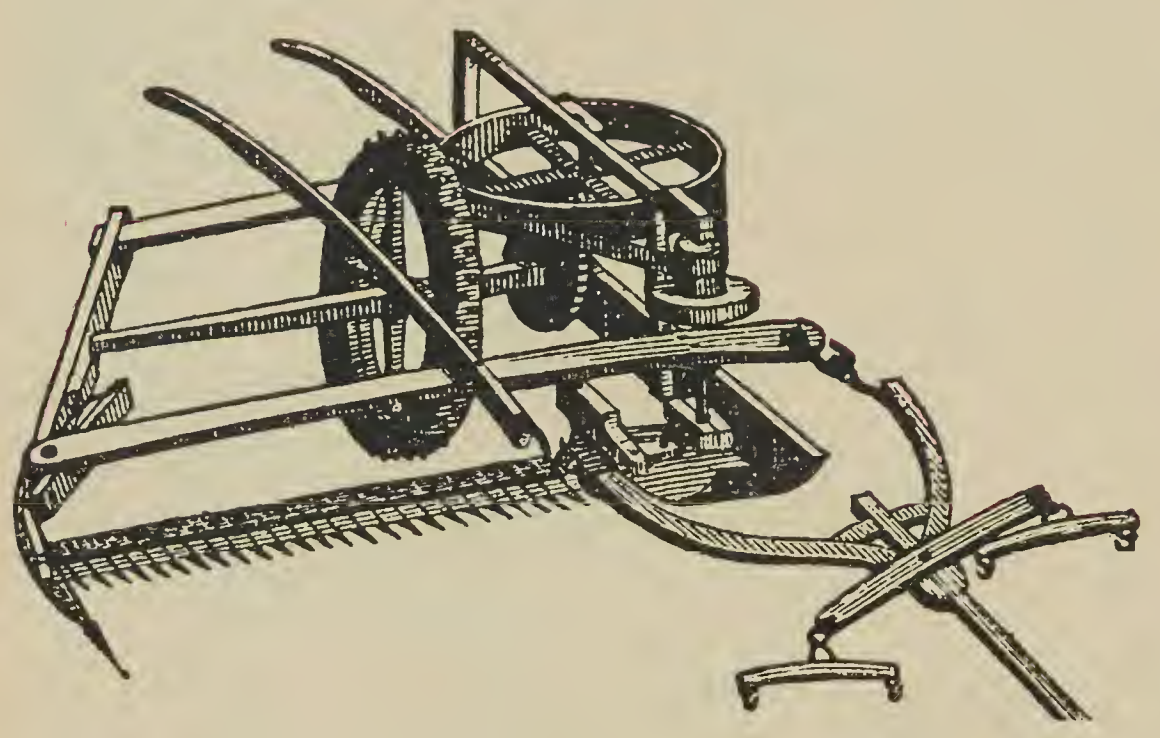
Before his untimely death a few years ago, my friend Willard Durkee, after a lifetime experience in selling farm machinery, spent several years collecting the facts and writing the history of farm machinery. Unfortunately, Willard died before he could complete the book. He pointed out that nearly every farm implement we have today has been invented or developed by farmers themselves.

This was true with the mowing machine. As early as 1836, there was a picture of a mowing machine called the Ambler published in THE CULTIVATOR at Albany, N. Y. (the oldest farm paper in the United States). A close study of the picture of this machine on this page will show you the few basic mechanical principles by which it was operated. Note that there is only one wheel with lugs, and the operator had to walk. Probably the cutter bar was not over 4 feet long.

If you have ever swung a scythe for any length of time, you can imagine the interest of farmers in these early mowing machines, crude as they were. But, like everything else new, the mowing machine had its doubters and scoffers, and for 75 years after that there were no great changes in mowing machine principles. Then came gasoline, electricity, and the tractor. Lo and behold the great change! Cutter bars now range from 6 to 9 and even 10 feet in length. The power no longer comes from the wheels but is taken off the tractor. Many mowers not only cut the grass but crush it for rapid drying.

Now, just about the latest thing in mowing machines is the windrower described by Harold Hawley in his "Gayway Farm Notes" in the March issue of American Agriculturist. This machine cuts a swath 10 to 12 feet wide, conditions it, and leaves it in windrows ready for the baler or chopper. It has a capacity of 3 to 4 acres per hour if it is kept moving — a far, far cry indeed from my grandfather's time when he cut all his hay with a scythe, leading three or four hired men and working during haying time from sunrise to sunset.

AMBLER'S MOWING MACHINE.



AMBLER'S MOWING MACHINE from a picture published in 1836 in a paper called THE CULTIVATOR. Compare this machine with the modern haying equipment described on page 10 of this issue.

A GIFT SUGGESTION

What can you give a friend? What can you give yourself that will bring more pleasure and real happiness than a good book? And what book can beat Ed Eastman's JOURNEY TO DAY BEFORE YESTERDAY?

It has everything — fun, information, romance, and fine memories.

What a splendid book for school or college graduate! What a fine book for anyone!

Send your check or money order for one or more books at $5.95 each, postpaid, to American Agriculturist, Department Book, Savings Bank Building, Ithaca, N. Y. — M.E.R.

MY HEART ATTACK

About twenty years ago, I was cleaning the cow stables one morning before coming to the American Agriculturist offices to put in a full day as the editor. As usual, I was working on the run. Suddenly I was hit with a terrific pain in my chest, something like you sometimes have when you have been running too fast in a foot race. I sat down on a milking stool to let the pain pass. When it did, I started running again, but again I had to stop.

That was the beginning of the circulatory or heart condition known as angina pectoris with which I have contended ever since. But I am alive and working, so perhaps the rules that have kept me so will *prevent you from having a heart attack* or *help you to live* if you are unfortunate enough to get a heart condition.

There are many kinds of heart disease. Angina attacks are caused by a lack of oxygen reaching the heart through blood vessels that have been partly plugged, like rust on the inside of a water pipe.

In the first place, everyone over 40 should **slow down** a little. I have found that I get just as much work done by not running mentally and physically all the time.

In the second place, if you are overweight you are putting an extra burden on your heart. So **reduce your weight.**

If you have had an attack of angina, you will have to arrange your work to **avoid physical labor and not let yourself become overtired.**

If you have a large farm or business operation, you can probably save money by thinking out and planning the work of others and by keeping cost accounts.

With angina, **never try to walk against a cold wind.**

Avoid lifting and **heavy work** of any kind. You can still drive a tractor or do light chores.

Carry some little white nitroglycerin pills, and take one at the slightest indication of an attack.

Your doctor will advise you and prescribe remedies. You may say immediately that you can't limit your work, that you're too busy. You have no alternative and you will be surprised at how well you can adjust to a new life. Since my first attack I have written many books and countless articles and editorials during the past twenty years. I found time and energy to work in a little greenhouse and garden when we had our farm. I can also do light housework, giving the women time to do other things.

Angina pain starts in the arms, between the shoulder blades, and causes a terrific pain in the chest.

Streamline your mind — worry less; streamline your figure — ease the heart's burden; and streamline your life's activities. It may save you from a heart attack.

"THROW AWAY YOUR CULTIVATOR"

I used to argue with the late George Warren, Farm Management Department of Cornell University, about the need of cultivating. Prof. Warren, noted for his practical common sense and blunt speech, said:

"Throw away your cultivator!"

But I was brought up with the idea that no row crop had been properly cared for unless it had been cultivated at least three or four times.

Warren said that too often the cultivator cut off the crop roots and retarded growth, and if weeds could be controlled otherwise, cultivating did more harm than good. Most farmers now will agree with this if weedkillers are used — but I still think that with heavy clay soil inclined to bake at least some cultivation to loosen and aerate the soil is necessary.

What do you think?

EASTMAN'S CHESTNUT

The minister arrived one afternoon to pay a call just as the members of the household were about to enjoy a glass of milk punch.

Forgetting for a moment the alcoholic content, the lady of the house graciously asked the minister if he would care to join them. He did, and drained the glass with relish. Then, smacking his lips, he said:

"Thank God for a cow like that."

American Agriculturist, May, 1964

AA SERVICE BUREAU

TEA BAG TAGS

"Could you settle an argument about tea bag tags?

"For a long time they could be saved and used to get wheel chairs for crippled people who needed them. Also, I have been told they could be used toward purchasing Seeing Eye dogs for blind people.

"Could you let me know soon?"

We understand that the tea industry has had many unfortunate experiences with this hoax. Confirming our belief that this was a false rumor, Mr. John M. Anderson, Executive Director of the Tea Council of the U. S. A., Inc., has written us:

"The Tea Council of the U.S.A., Inc., speaking for the U.S. Tea Industry, can and does categorically state that there is not and never has been any truth to the rumor that tea tags can be exchanged for wheel chairs, crutches, Seeing Eye dogs or any other aids to the handicapped.

"For any industry, the idea of a promotion based on taking advantage of the physically handicapped would be in extremely poor taste.

"But even were this not so, it is clear any program exchanging anything for wheel chairs and such, to be fair, would have to be offered on an equal basis to any and every chapter of any and every charitable or other organization engaged in supplying equipment for the infirm. What would be involved in trying to be fair to all is staggering to contemplate.

"No one seems to know how such a rumor got started, but we certainly hope all who read this will do what they can in their circle of friends to spread the truth."

TIMBER CONTRACT

Mr. R. M. Robbins of Otselic, New York, recently sent us a copy of a proposed 20-year agreement for managing timberlands between a lumber company and a landowner. It seemed to him, and we agree, that the contract was written primarily to protect the company rather than the owner of the land. Unfortunately, a few unscrupulous timber buyers have tended to give the industry a bad name — a name not deserved by many legitimate companies that purchase timber.

Decisions are only as good as the information on which they are based, and evaluating a timber contract is no exception. It is very important that any landowner obtain all the information he can get before he signs any contract for timber harvest rights. He should check with the District Forester for his area, contact the college of forestry in his state, and visit with or write to Extension foresters connected with the county agricultural agent system. In addition, it is a good idea to obtain the services of a professional forester for advice if large amounts are involved.

The Service Bureau receives thousands of letters every year from people who made hasty decisions based on inadequate facts and then spent a long time regretting them. There are always ways to find out enough about a subject to make an informed decision. It takes time, and often requires the expenditure of some money, but a job well done in obtaining as many facts as are available will pay for itself many times over in making any business decision.

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mr. James Church, Carthage (settlement for cow)	$90.00
Mr. Earl B. Turner, Latham (refund for iris)	35.00
Mr. Henry Hach, Castile (settlement for cow)	50.00
Miss Veronica Denner, Obernburg (refund on order)	6.49
Mrs. H. Theadore, Roscoe (refund on order)	47.19
Mr. Carlton Loomis, Bainbridge (refund on returned order)	13.45
Mr. Walter B. Jacksan, New Bremen (duplicote poyment refund)	1.20
Mr. David E. Brundage, Wallkill (refund on binoculors)	4.84
Mr. Vernan Davis, Franklinville (refund on rosebush)	3.95
Mr. J. D. Onderdonk, Latham (refund on incomplete order)	4.95
Mrs. Harold Corey, Martville (refund on moil order)	59.00
Mr. Reed La Tourette, Sidney Center (refund on choins)	32.55
Mrs. Annie G. Young, Mattituck (refund on incomplete order)	5.98
PENNSYLVANIA	
Mr. Frank M. Drust, Lenaxville (refund on records)	8.36
NEW JERSEY	
Mr. Alex M. Zarzycki, Somerville (domoge settlement)	1,500.00
VERMONT	
Mr. Alden Swett, Lunenburg (insuronce settlement)	126.12
MASSACHUSETTS	
Mr. Harold Lewis, Monterey (refund on order)	7.00

ADDRESSES WANTED

David Wilday, about 66, whose home town was North Blenheim and who had relatives in Schoharie County. A friend and former employer is trying to locate him.

* * *

Walter J. Woods, age 62, whose last known address was Pittsfield, N. H. Often seeks employment on poultry farms. Daughter would like to find him.

* * *

Leila Greene or Malcolm Greene, who lived in Medina, N.Y., and graduated in 1928 from Medina High School.

* * *

Mr. Albert Whitlock or Mrs. Frances Maloney Whitlock, formerly of Rushland, Pa.

CAN YOU HELP?

Mrs. Harold Ryan, R. D. 1, Cayuta, N. Y., would like the words and music to a song by A. B. Bowers, which includes, "There's no night there; for God is the Light; there's no night there."

* * *

Mr. and Mrs. Elton May of Walworth, N. Y. collect old pictures of Walworth, and would like to borrow any from which they could have prints made. They will pay postage.

* * *

Glove Caught In Field Chopper



It happened in an instant—Mr. George Reitz of Machias, N.Y. was yanked into the machine. His right arm was so badly mangled that amputation above the elbow was necessary. $1511.14 in loss of arm and medical expense benefits was paid from his two North American policies.

Receiving check from local agent, Rod Guichard of Randolph, N.Y. Mr. Reitz wrote saying:

"My wife and I own and operate a 208 acre dairy farm with the help of our four children ranging in age from 4 to 16. We bought this farm four years ago. We have had double policies on ourselves since we have been here. This is the first time we have used these policies. Many thanks to you for the prompt and efficient way you handled my accident report."

OTHER BENEFITS PAID

Lee Jordan, Bolivar, N.Y. — Hit by tongs—injured ribs & back	$ 228.58
Betty Morgan, Ischua, N.Y. — Auto accident—ruptured spleen	589.64
Albert Leonard, Poplar Ridge, N.Y. — Auto accident—injured back, ribs head, kidney	2587.84
Charles P. Gugine, Silver Creek, N.Y. — Fell off bean harvester—severe back injury	1046.90
Eugenia Jaynes, Horseheads, N.Y. — Fell off step ladder—fractured heel	554.79
Richard Ratcliff, Plymouth, N.Y. — Tripped over mowing machine—fractured arm	422.98
Rowland Goodale, Cortland, N.Y. — Auto accident—broke hip, injured back & head	922.80
Thomas E. Maulik, Margaretville, N.Y. — Banged hand—open fracture hand	472.71
John F. Spengler, North Collins, N.Y. — Fell off hay wagon—broke bone in foot	130.71
Ludwig Hess, Johnstown, N.Y. — Crushed by cow—injured elbow	292.00
Glenn L. Gibson, Oakfield, N.Y. — Riding tractor, hit by car—broke elbow, ribs, crushed lung	875.52
Stanley Sutton, Windham, N.Y. — Auto accident—broke knee	252.86
Lottie A. Kozak, Richfield Spa, N.Y. — Kicked by cow—badly broke leg	941.88
E. Kenneth Bast, Watertown, N.Y. — Truck accident—cuts & bruises of face	204.67
Martin Beyer, Lowville, N.Y. — Caught hand in machine—injured fingers, thumb	582.59
Henry Clements, Caledonia, N.Y. — Bumped ladder—injured leg	130.81
R. Arlene Kenyon, Kirkville, N.Y. — Fell from tractor—fractured foot	297.00
Otto Leibeck, Churchville, N.Y. — Slipped & fell—injured shoulder	325.71
Ronald M. Colegrave, Fort Plain, N.Y. — Crushed by cow—injured hand	169.29
Mildred Fuller, West Winfield, N.Y. — Kicked by cow—injured back	545.00
Thomas Heselden, Syracuse, N.Y. — Fell—cerebral contusion	1215.70
William Lyon, Sr., Phelps, N.Y. — Getting off tractor—stepped in hole—injured knee	320.00
William Noteboom, Montgomery, N.Y. — Slipped while standing in manure spreader—injured knee	1114.55
Calvin Nesbitt, Albion, N.Y. — Playing polo—injured shoulder	134.99
Nathan Barnhart, Hastings, N.Y. — Hit by door—injured forearm	324.46
Irving G. Shampine, Gouverner, N.Y. — Caught hand in tractor hitch—cut & broke fingers	259.96
Philip Todd, Winthrop, N.Y. — Hit with hockey stick—injured teeth	168.00
Ina Brooker, Richmondville, N.Y. — Fell on porch—fractured hip	1342.05
Ruby Hunt, Bath, N.Y. — Slipped & fell—sprained knee & broke wrist	368.85
Nelson E. Zeh, Jasper, N.Y. — Hit by section of boom—broke thigh bone	1329.31
Walter Kasper, Candor, N.Y. — Caught in PTO—broke ribs, injured kidney, multiple cuts, bruises	1360.00
Manford Austin, Whitehall, N.Y. — Caught in V belt pulley—cut & crushed fingers	411.15
Timothy J. Scott, Walworth, N.Y. — Auto acc.—broke ankle, hand, cuts	766.93
August Kruppner, Bliss, N.Y. — Kicked by cow—injured knee	160.71
Elizabeth Ward, Sylvania, Pa. — Auto acc.—injured back, shoulder	353.04
Louis Cook, Corry, Pa. — Power mower ran over foot—cut toes	128.00
Leroy F. Ellis, Milford, N.J. — Truck acc.—broke nose, cuts	714.46
Walter Heublein, Jackson, N.J. — Slipped on ladder—injured shoulder, back	384.36

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GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING — ITHACA, NEW YORK

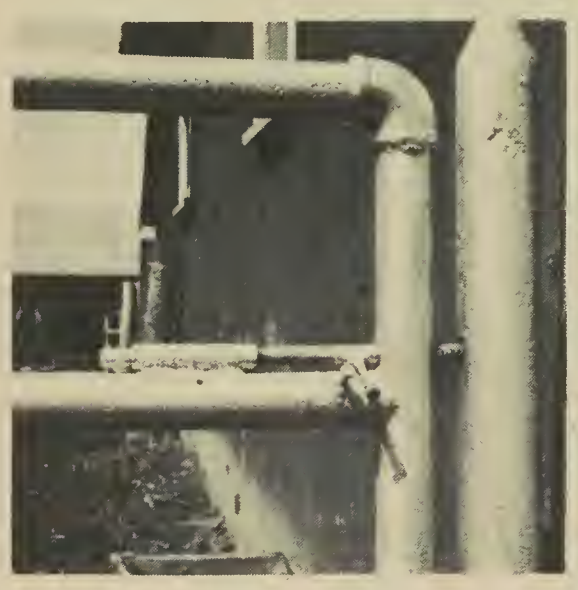
HANDY FARM ITEMS



A plank bolted to the edge of the foundation prevents the edge from being broken and acts as a cushion against backing vehicles. Bolts just long enough to reach through the plank were set in the foundation when it was poured, and the nuts were countersunk in the plank to prevent damage by protruding.



A handy welding bench, with cup attached for holding rods and chipping hammer. Frame is welded pipe, the legs flared slightly, and it is covered with expanded metal for top work surface.



This gate is made entirely of used pipe, welded. The sleeve-type locking bolt is easy to operate, and has a positive lock merely by turning down the bolt welded to the sleeve.



The mineral block is kept clean and dry on this barnlot shelf. The material is 2 inch lumber (except for posts and backing) to stand the rough treatment the cattle sometimes give it. A block holds the mineral snug.

Good baking to you.....

(Continued from page 43)

door. It is not desirable to shift pans during baking. Make appropriate test for doneness of the product you are baking. If your oven does not have a thermostatic control or you feel it is not behaving accurately, a good oven thermometer is a wise investment.

Biscuits, muffins, and yeast rolls are best eaten fresh from the oven. Nut and fruit breads, removed from pans, cooled, wrapped and stored for a day will have a better flavor and cut more easily. Bar-type cookies are cooled in the pan, then cut and stored in pan; all others need to be removed immediately from baking sheet. Shortening-type cakes are allowed to stand right side up on rack for 10 to 15 minutes before removing from pans; fruit cakes until lukewarm (to avoid splitting). Sponge, angel, and chiffon cakes need to hang upside down while cooling for about 2 hours before removing from pan. Tube of inverted pan may be rested on narrow-bottom tumbler, narrow-necked bottle, or inverted funnel to allow free circulation of air.

A garden pool

(Continued from page 42)

touch on an outdoor living area. Water flows softly down from one rather flat bowl to the next, and with a re-circulating pump, this is a continuous process.

The soft splashing and falling of water in this type pool, when the temperature is in the 80's and 90's, will make your work and investment seem well worthwhile. It will give you real pleasure, and I guarantee you will automatically "feel" cooler!

New style for the sandbox set.....

(Continued from page 40)

have been simplified and are more clearly written.

The current trend toward simplicity of design and construction reduces the amount of skill and time needed to turn out good looking, stylish, and practical garments — even coats. Another advantage of this simplified construction is that alterations are easier, and fewer of them are needed.

Not many years ago, most patterns contained just one design, with only limited possibilities for variation. Today, the move is toward patterns which offer many suggestions for variation. You may find shorts, slacks, and one or more tops in one pattern, for making a whole summer play wardrobe, or there may be one basic shape which can be used for many purposes.

An example of the latter type is shown in the photograph on page 40 , where a smock-type garment is adapted to several different purposes. From left are a red checked gingham smock with long sleeves, piping, and a bright apple pocket; a polished cotton party dress with overlay of eyelet embroidered batiste; a printed corduroy smock-dress with rick-rack and large pockets; a short, plaid angel top with push-up sleeves; a sleeveless, border print summer play dress or nightgown, and an old-fashioned winter nightgown of printed cotton flannel with eyelet edging around the yoke. The basic shape of the garment was not changed; only the sleeve length, neckline, hem length, and fabric were varied.

Both this style and the A-Line sailor dress No. 9049 are typical of today's fashions for little girls, and the key word for them is "easy." They are easy to get on and off, easy to wear, easy to care for, easy to make and alter — and easier than ever on the family budget.

CLOBBER THOSE...



(Continued from page 18)

ly well suited to loose housing setups.

Backrubbers include many ingenious devices for self-treatment of pasturing cattle, both beef and dairy. For beef cattle, many insecticides are safe and effective, particularly against horn fly. For dairy cattle, only Ciodrin or pyrethrum should be used in backrubbers.

Housefly in the barn is best controlled by 1 percent insecticide applied to the walls, ceilings, partitions etc. Diazinon and ronnel are generally effective, but in some dairy areas flies are resistant to these chemicals. Cygon (dimethoate) is effective everywhere; no resistance to it has been found so far.

Baited ribbons ("Snip") are effective against housefly in barns, provided enough are used. "Sprayed-on" baits, particularly Vapona and corn syrup, are effective against face flies by daily application to heads of cattle. Hydraulic hand sprayers, set to apply 1/6 ounce per stroke should be used. It takes but a minute or two to apply bait to a whole herd by walking along in front of the cattle giving each cow one quick stroke. Spot spraying the wall once a week by the same method is a simple, inexpensive, easy way to control houseflies.

A new method of housefly control in barns, Vapona resin strands or strips, will be available in 1964. These are "residual fumigants" as the insecticide is enveloped in a plastic that allows slow but steady release of Vapona vapor to keep the air in the barn lethal to flies. This low concentration of insecticides in the air is not harmful to man or to cattle. The Vapona resin is used by suspending the strands or strips from the ceiling; one application should last all summer.

Caution is a necessity in all pesticide uses around livestock. Read labels carefully. Do not contaminate the feed, hay or water. Do not use any pesticide on dairy cattle unless the label specifically recommends use on dairy cattle.

MASSEY FERGUSON
YOUR NEARBY DEALER
PARTS AND SERVICE

Save on financing! The MF Dealers listed below will show you how quick and easy it is—and how you save—with the Massey-Ferguson Low-Cost Time Payment Plan.

NEW YORK

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ALBANY, Abele Tractor & Equip. Co., Inc.
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HORNELL, Thacher Brothers
HUBBARDSVILLE, Jacob Misch & Son
ITHACA, Ithaca Farm Equip. Inc.
JEFFERSONVILLE, Jeffersonville Garage
KIRKVILLE, Mabie Bros. Inc.
KINDERHOOK, Kinderhook Farm Equip. Corp.
KING FERRY, Roy A. Tuttle
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MILLERTON, Scoland Farm Equip.
MARCELLUS, Nightingale Mills, Inc.
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RIVERHEAD, William Kroemer & Sons, Inc.
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NEW JERSEY

DEERFIELD STREET, Ackley's Garage
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LAKEWOOD, Bartolf Equip. Co.
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MT. HOLLY, Hy-Way Tractor & Equip.
NESHANIC STATION, J. S. Covert & Sons
NORMA, Norma Motors
PINE BROOK, Shulman Equip. Co.
STEWARTSVILLE, Esposito Farm Machy.
WICKATUNK, Conover Bros.
WOODSTOWN, R. J. Franzen

The hay's ready. The weather's right. Now bale 600 tons in 50 hours...with no daily greasing!

You can forget your messy grease gun with the famous Massey-Ferguson 10 Baler for 50 full working hours. Just give one squirt each to three fittings on the PTO shaft—that's all you have to do! Bearings throughout the baler itself are factory-lubricated and sealed for life.

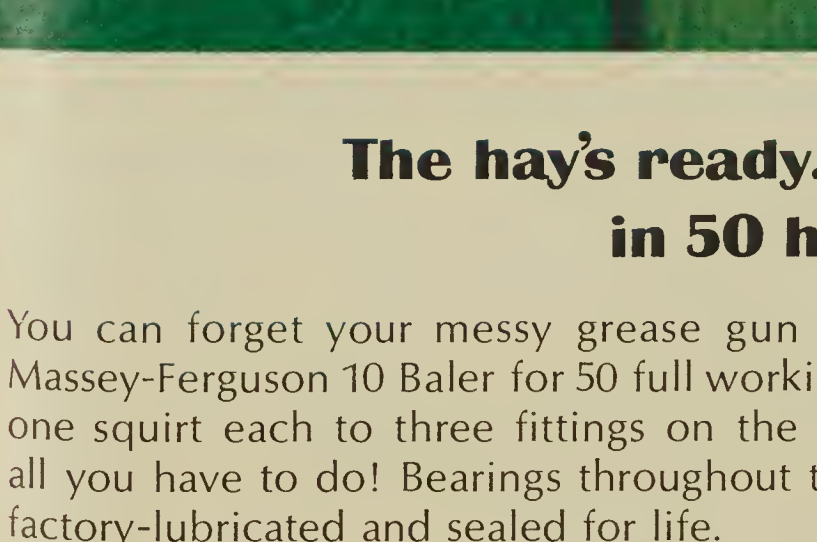
So when the hay's ready, *you* are too—ready to put up 10 to 12 tons an hour, with no greasing delays. The wide pick-up with three capacity-matched packer forks moves the hay from windrow to bale chamber smoothly and gently to save more of the leaves for higher protein hay. The sure-tie knotter secures every bale until you cut the twine. A simple adjustment makes bales exactly to the size and weight you want them—from 12 to 50 inches long, lightly or tightly packed.

Isn't this the baler for you? The MF 10 Baler that works 50 full hours on just three squirts of a grease gun? And with the no-miss MF 21 Bale Thrower, you cut your manpower needs in half. Ask how you save when you buy on the low-cost MF Time Payment Plan. Massey-Ferguson Inc., Detroit, Michigan.

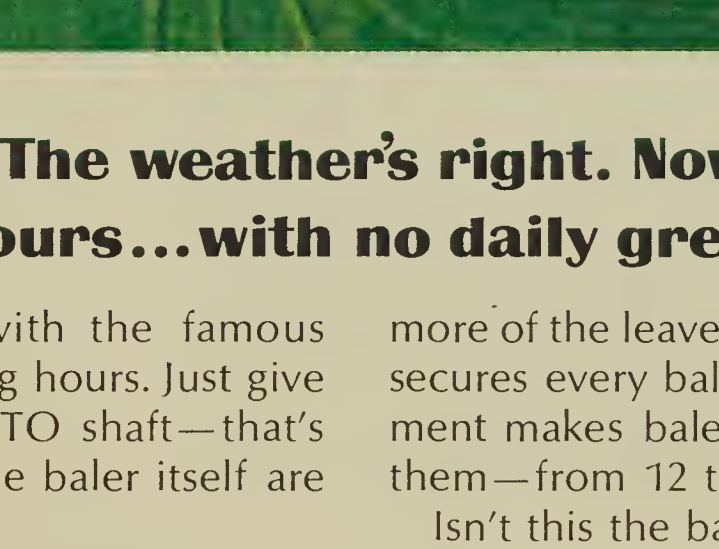
MASSEY-FERGUSON

World's largest manufacturer of tractors and combines

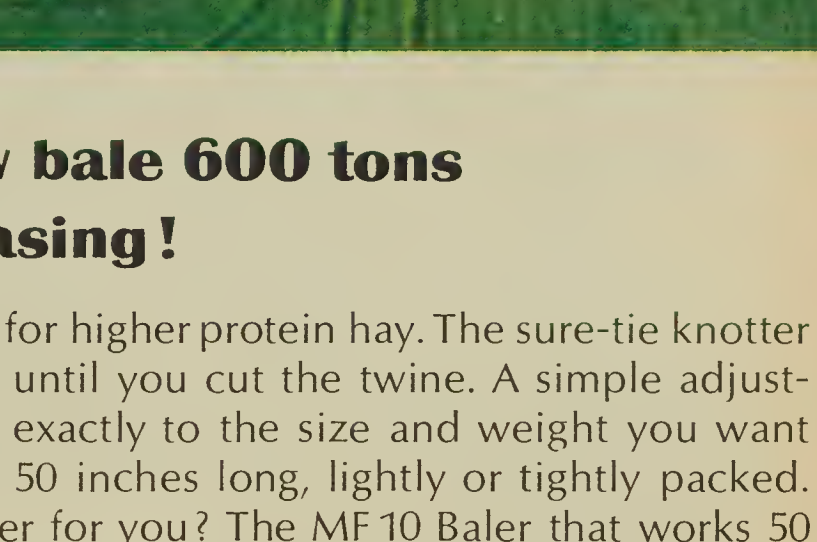
MF 36 Pull-Type Side Rake



Massey-Ferguson 10 Baler



MF 31 Dyna-Balance Mower







FORD 515 MOWER. What a difference this all-new sickle drive makes in mowing! Simple and rugged, smooth and quiet, it runs on sealed ball and roller bearings—eight in all. It mows far more acreage with far less wear. A single V-belt replaces the pitman. The sickle drive is attached to the cutterbar and operates with just enough built-in vibration to keep the cutterbar clear. Simple, convenient adjustments.

Strong, simplified frame and mounting provide instant response to tractor's touch control lever. Cutterbar hugs the ground . . . it's balanced to "float" without excessive drag. The 515 cuts just as fast as you want to drive, 6 or 7 acres an hour. And Ford's new sure-trip breakback pivots 45° and protects the entire mower. PRODUCTS OF Ford MOTOR COMPANY

Weather-beating capacity with FORD Quality HAY MAKERS





FORD 530 BALER. Watch this all new feeding system handle the heaviest windrows—turn out firm bales—up to 8 a minute. Spring loaded dual forks operate to give uniform feeding and big tonnage baling. The plunger rides on sealed rollers for smooth operation and low maintenance. Six spring loaded hay dogs help assure good square bales even under adverse conditions.

The 530 is quality-built to outwork most balers. Slip clutches keep you going—no shear-pin delays. The Ford knotter has a stainless steel billhook for a long life of sure tying. Wire-tie available, if you prefer. Plan now, with your Ford Tractor dealer, to finish haying faster, ahead of weather.

NEW YORK WORLD'S FAIR — Ride the Magic Skyway — FORD MOTOR COMPANY WONDER ROTUNDA



503 Rake—smooth, quiet raking gently rolls hay into straight windrows. Exclusive "air cushion" stripping saves nutritious leaves.



510 Hay Conditioner—your choice of a crusher or a crimper in pull-type or semi-mounted models. Hay cures 50% faster, field losses reduced up to 20%.



520 Baler—baling at its low-cost best. Compact, simple, sturdy . . . easily bales up to 8 tons per hour, twine-tied 12 x 16-inch bales.

American Agriculturist



JUNE 1964













June is **DAIRY** month

"How'd we do it before, Dad?"

"Good question, son! And there's a good answer."

"We just worked longer and harder. Even then, we didn't do it as well. We didn't have the machines, power, or the capacity a few years ago. This new Allis-Chalmers 780 Forage Harvester puts grass silage, corn silage and haylage on a big production basis. Just goes to prove that a man has to keep ahead on farming practices to get the most from his land."

It's just these kinds of "keeping-ahead" farm people who are coming to the people at Allis-Chalmers. About this new Forage Harvester for one thing. Big Capacity, 6½-foot pick-up or direct cut head. Gulps hay or grass crops by the acre . . . and a wide cylinder with six "cut 'n throw" knives makes clean, uniform silage. When the time comes, corn head chops top quality feed. Add the Allis-Chalmers self-unloading wagon, the new blower that boosts into highest silos. Mister, you've got the big, big production silage team. Ask your dealer.

ALLIS-CHALMERS • MILWAUKEE, WISCONSIN



American Agriculturist

FOR THE NORTHEAST FARMER

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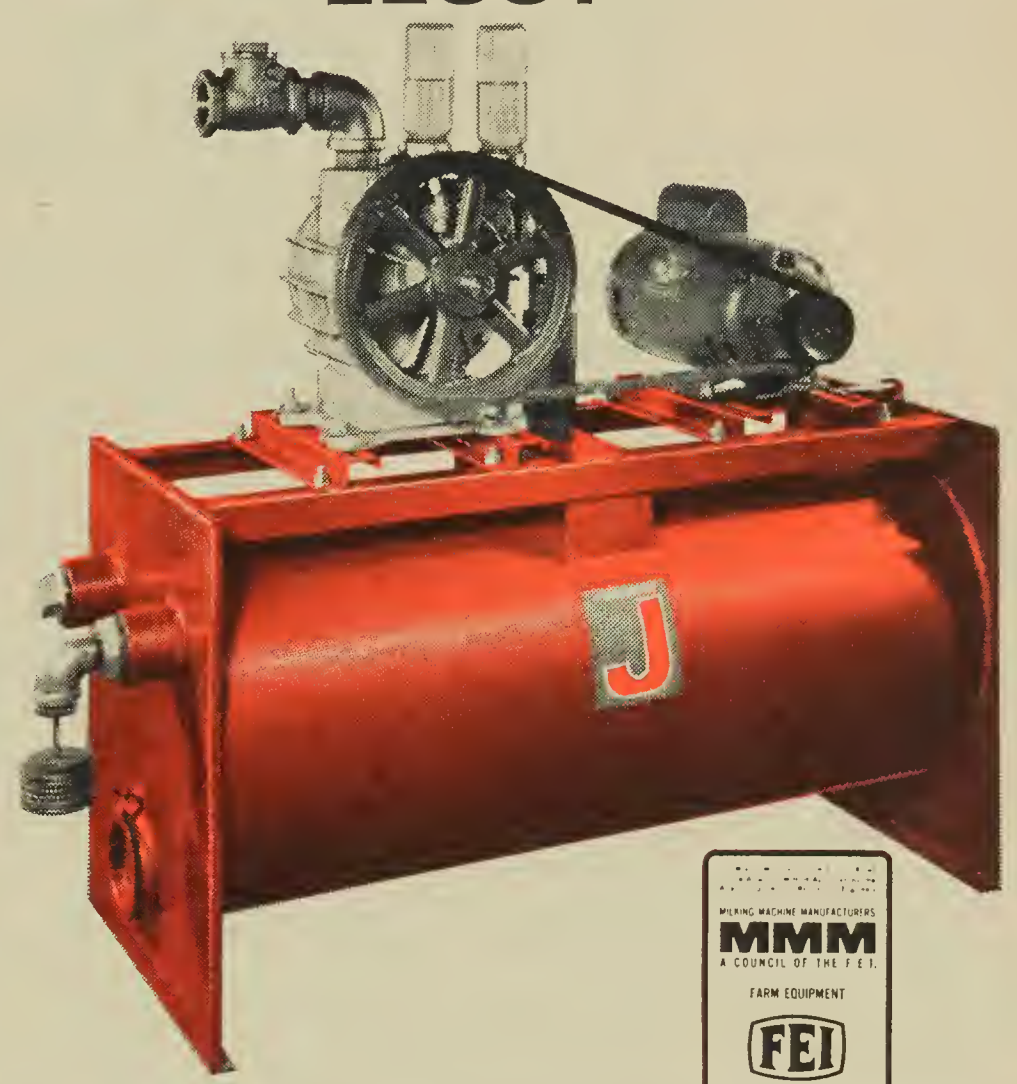


OUR COVER

You know, one of the joys of living is eating — even if it does lead some of us to the Battle of the Bulge! Those scrumptious-looking dairy dishes on the cover remind us that June is Dairy Month. Credit goes to the American Dairy Association and Dairy Council of New York for providing material to put all that color on page 1.

Comparison proves:

BIG J VACUUM SUPPLIERS COST LESS!



2 HP RANGE VACUUM SUPPLIER
COST PER CU. FT. PER MIN. OF CAPACITY*

Jamesway	Brand B	Brand C	Brand D	Brand S	Brand S (Rotary)
$19.44	$28.05	$21.29	$24.63	$32.86	$22.42

*All pump capacities above are American Standard Method (or corrected to A.S.M.) of pump rating as approved by the Milking Machine Manufacturers Council of the Farm Equipment Institute.

The chart tells the story — Jamesway vacuum suppliers cost less than any other brand in capacity rating. But the savings really add up in unit costs — often enough to re-pipe your vacuum lines to handle more cows.

That isn't all. Big J vacuum suppliers have high capacity *rotary pump action* for constant vacuum, more uniform milking that helps prevent mastitis problems. And Jamesway's rotary pump is so efficient you get more vacuum per horsepower than any other type. Means lower operating costs, too. You will be proud you chose Jamesway.

The Big J units come complete with no extras to buy. They're unitized, factory assembled. More, they hook up so easily you can change over between milkings. Big 25 gallon reserve tank provides plenty of reserve vacuum capacity.

What size do you need? Ask your Jamesway farm specialist for a vacuum test — he has a selection of six heavy-duty Big J vacuum suppliers to meet your *exact* herd requirements.

Lease or finance! You can lease a Big J vacuum supplier or a complete milking system with no down payment. Or Jamesway will finance, providing up to two dollars for every one you invest in Jamesway equipment.

FIRST IN POWER CHORING
Jamesway®
James Mfg. Co.
A DIVISION OF ROCKWOOD & CO.
Fort Atkinson, Wisconsin, Dept. AA-64

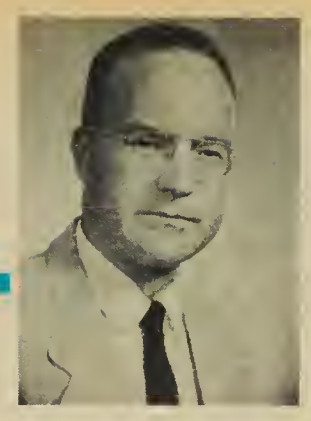


Name _____
Address _____
Number of cows milking _____ ☐ Student
☐ Please send me your free Dairy Fact Book
☐ I am most interested in _____

AA-64 3360-1

EDITORIALS

by GORDON CONKLIN



GRACE HUCKETT

Along with a multitude of her other friends, I was saddened by the death of Grace Watkins Huckett, once Home Editor of American Agriculturist.

Grace and I joined the editorial staff in 1925 within a few months of each other, and for more than 25 years she did yeoman service in helping to establish American Agriculturist as the leading farm paper of the Northeast.

I remember her for her kindness, for her ability to give to farm wives accurate, practical information about sewing, cooking, decorating the home, and the many other facets of homemaking. She was practical, yet never lost sight of the main objective of making rural America stronger and better. Gardening was one of her hobbies, and she wrote of her experiences for many years under the name of "Aunt Janet."

When in 1950 she retired to her home near Riverhead, Long Island, she continued her interest in every worthwhile community activity. She is survived by three sisters, two brothers, and by her husband, Dr. Hugh Huckett, an entomologist of international reputation.

The sympathy of the entire staff of American Agriculturist is extended to the family. — Hugh Cosline

DAIRY FUTURE

Here are some things dairy farmers, and folks who work with dairymen, see in the crystal ball.

Purchased protein costs in the Northeast have jumped about 24 percent over the past five years. Dairymen can save some real money by getting protein levels of purchased grain down just as low as possible and still maintain production. Urea as a protein source, and the use of early-cut haylage, also offer opportunities to meet the "protein squeeze."

The cost of making hay has crept up on us unawares and, in some areas of the Northeast, farm management studies reveal that the cost per pound of TDN from homegrown hay is about the same as from purchased grain. Corn silage, with its potentially high yield of TDN per acre, is predicted to become of even greater importance as feed for the dairy cattle of the region.

At Rutgers, John Carncross recently authored a publication entitled "Business Management Factors on 50 New Jersey Dairy Farms." In his summary, he says: "The 50 herds were classified into three groups according to the relative percent of butterfat content of the milk. The labor income per farm for the lower butterfat-testing herds averaged $2,466 compared to $1,690 for the medium butterfat testing herds, and minus $2,048 for the highest butterfat testing herds. While the milk price received for the group having a higher butterfat test was higher, it was not enough higher to compensate for the higher cost of producing the higher butterfat-testing milk."

G. A. Boger, president of Lehigh Valley Cooperative Farmers at Allentown, Pennsylvania, had this sentence in his most recent annual report to stockholders: "We are rapidly approaching the time when we will be forced to encourage our members to convert more rapidly to bulk tanks on their farms." Anyone planning to be in the dairy business 10 years from now in the Northeast should make his plans on the basis of all milk leaving farms in bulk by then.

"The importance of management increases with each passing day — in all types of farming." You've heard this refrain so often I'll bet you could throw something at the next guy who repeats it, including an editor. It's never been easy to manage a farm business well; it's now even more demanding. Being completely realistic about one's own management ability isn't easy, either, but the attempt should be made. Sometimes each of us has to be pretty rough on himself to make some real changes in the way of doing things.

One last look into the crystal ball shows one thing unchanged in the future, though — milk and dairy products will be just as fine foods nutritionally as ever — and even tastier than they are now!



STRAWBERRY SHORTCAKE

I wandered the other day across the fields, drinking deeply of the pure vintage of a May dawn. All at once I found my feet surrounded by jillions of wild strawberry blossoms.

I made a mental note as to the location of this future treasure and resolved to return when the paintbrush bloomed. For there is no more wondrous taste on earth than that of wild strawberry shortcake. As a boy growing up on a hill dairy farm, wild strawberry season was the high point of the year — school was out and shortcakes were in!

Phooey on calories, radioactive fallout, and all the rest — bring on this crimson-topped delight of summertime!

INFORMATION, PLEASE

Dear Mr. Secretary of Agriculture:

I understand that a new law has been passed to help us Christmas tree growers overcome our surplus problem by paying us not to grow Christmas trees. I have a 200 acre swamp where I would like not to grow Balsam Fir, and a very steep hillside where I would like not to grow Scotch Pine. On my better land, there is a ten acre block of trees practically ruined by the pine shoot moth that I would be glad to burn over to qualify for acreage reduction payments.

Is my understanding correct that I am paid more for not growing Scotch Pine than for not growing Douglas Fir, because with the Scotch Pine I am also not pruning the trees I am not growing, whereas the Douglas Fir I am not growing does not require the pruning I am not doing? I am told that signing up to not grow White Spruce is better than most other kinds of Christmas trees because White Spruce grows slowly and the program pays for more years during which the White Spruce are not growing.

Our county agents have for years told us how to be more efficient and grow two marketable trees where only one grew before. Things have changed a bit, but somehow I want to be just as efficient at not growing things as I once was when production was in fashion.

Lately I have been listening to some local folks tell of their trip to Russia. If we work at it, I am convinced we can also have an agriculture in our good old U.S.A. that puts half the people back on the farm like in Russia. They certainly aren't troubled over there with all these surpluses! I am glad to see that we're learning something from them about centralizing planning for agriculture so the bread lines can teach people how important it is!

FOREVER ROTTING

New York State is the only state in the Union with a sweeping constitutional restriction on the use made of its 2½-million acre Forest Preserve. Using a square foot of it for any other purpose than being "forever wild" requires passage by two successive legislatures and a referendum by the State's voters, and any attempt to even put a new road on Forest Preserve land is sure to cause a heated battle.

The folks who passionately defend keeping this land "forever wild" puzzle me just a bit. Somehow, keeping this land inviolate seems almost a religion with them, and it's next to impossible for them to discuss the matter objectively and without intense emotion. The more accessible parts of the Forest Preserve are substantially used, but few people ever actually go into the wilderness. Somehow, though, it seems to provide some folks a comforting feeling just to know that it is there somewhere.

No cutting of timber is permitted, denying the State millions of dollars in income enjoyed by other states whose foresters supervise the cutting. A no-harvest policy creates a forest of mature and overmature trees which are "harvested" eventually only by the wind, insects, or diseases.

Wildlife experts agree that untouched forest lands do not provide as good browse or cover for deer, nor does small game thrive as well as in woodlands where cutting is practiced.

Finally, as the population pressure of the Empire State continues to grow, we see the spectacle of millions of acres of potential recreational areas closed to public access. Now and then a few hikers explore the wilderness, but most of its defenders seldom venture far from their ignition keys.

The Indians, of course, once tried to enforce a "forever wild" policy on the early colonists. But it was obvious to those hardy pioneers that a growing population could not be supported without modifying nature and using natural resources for human needs.

Perhaps New York State is rich enough so it can afford a vast area of unused land in the "bank" earning no interest. But I think we should take a long, hard look at the handcuffs we've placed on ourselves, and ask whether in the long run this enormous area of "forever rotting" timberland really meets the test of "the greatest good for the greatest number."

ADULTERY FOR ADULTS

There's a movie marquee down the street from my office window. It seems as though about half of the movie titles displayed thereon are followed by the words "For Adults Only" — which insures good attendance by teenagers.

Just recently, though, there appeared a new lure on the marquee proclaiming "For Mature Adults Only." Being adults is apparently not enough to view filmed perversion; it is now asked that one be a *mature* adult. Whether it's for "mature" adults, just plain adults, or some other designation — I still claim that a lot of what passes for theater entertainment is just plain sludge.

As a wise man once said, "You take out of your minds in daily living what you choose to put into them."

American Agriculturist, June, 1964

RATE YOUR CO-OP!

(and/or Federation of co-ops)

If you spray your meadows with the right equipment, but the equipment is poorly adjusted for the job, the result is *good intentions* but *a poor hay crop*.

The same is true of a cooperative. A co-op is the "right equipment" to do a job of marketing and representation for dairymen, but *how can you "rate" it?*

Use this check list to find out!

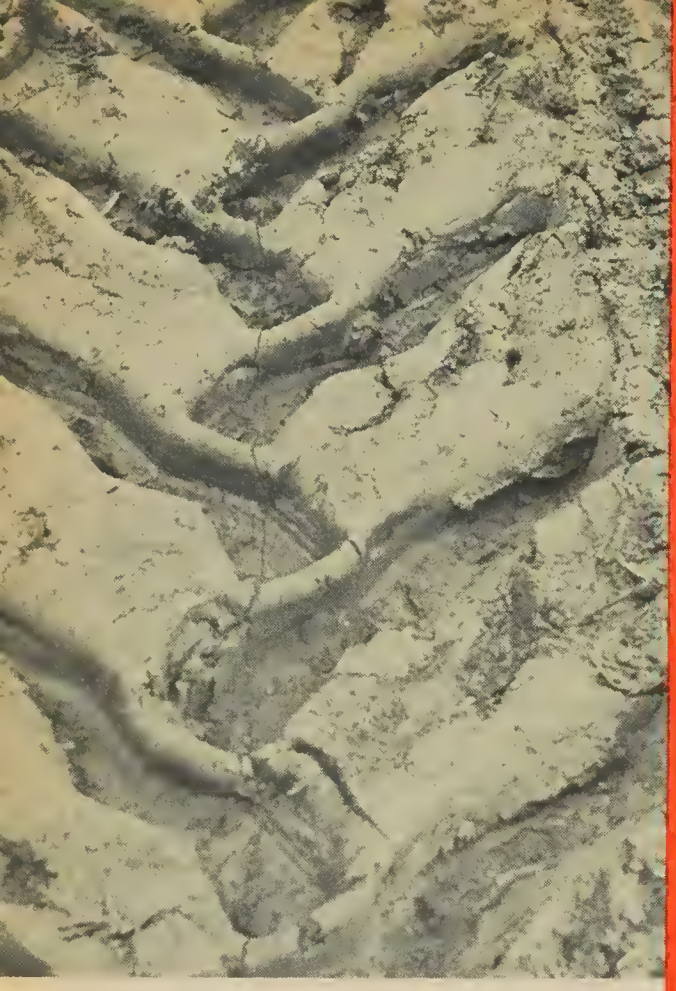
MEASUREMENTS	YOUR CO-OP (?)	DAIRYMEN'S LEAGUE
1. Regardless of who issues it, does your milk check stub clearly show your area base price as well as each deduction and each premium separately?	YES / NO	YES / NO
2. If funds are deducted from your milk check for building or buying plants, land, equipment, etc., (capital funds) does your co-op or federation of cooperatives guarantee to repay these funds in a specific number of years?	YES / NO	YES / NO
3. Do these capital funds you loan to your cooperative or federation pay interest (5% currently) to you every year until repaid in full?	YES / NO	YES / NO
4. Has your cooperative (or federation) made substantial progress toward meeting the U.S. Public Health deadline that is less than 20 months away? (Failure to meet this deadline will drastically reduce markets available for your milk.)	YES / NO	YES / NO
5. Has your co-op (or federation) consulted you and taken a broad survey of membership opinion before taking a public position (or remaining neutral) for or against national supply management legislation?	YES / NO	YES / NO
6. Is your co-op (or federation) seeking funds to run manufacturing plants while neglecting to protect you by investing at least equally in buying or building fluid (Class I) processing plants in key metropolitan marketing areas?	YES / NO	YES / NO
7. Does your co-op (or federation) provide any farmer-owned fluid facilities in cities such as Syracuse, New York, Albany, Poughkeepsie, Buffalo, Rochester, etc.?	YES / NO	YES / NO
8. Are your directors and officers allowed to serve long enough to get a full understanding of how employee management operates, in order that members can thereby really control their own organization?	YES / NO	YES / NO
9. Does your co-op (or federation) guarantee a market for your milk 365 days a year, and back it up with its own milk plants?	YES / NO	YES / NO
10. Can your co-op (or federation) provide bulk and can service anywhere in the Milkshed?	YES / NO	YES / NO
11. Does your co-op (or federation) have an active year-round information and market order program for members?	YES / NO	YES / NO
12. Does your co-op's (or federation's) marketing program now extend through nine states and more than 30 large cities (to say nothing of even more extensive marketing of some manufactured products)?	YES / NO	YES / NO

If you didn't get enough right answers, your co-op may want to consider the Dairymen's League Affiliations Program or you may want to apply for League membership.

In either case, contact a League Division office or a League Director or Local officer nearest you. They'll be glad to talk it over with you.

It makes good sense to be with a FULL SCALE COOPERATIVE.

THE DAIRYMEN'S LEAGUE
COOPERATIVE ASSOCIATION, INC.



If the tractor makes tracks like this, better stay off the field!



Hugh Wilson is using a soil penetrometer.



Minimum tillage, as with this clodbuster, helps prevent soil compaction.

Compact is for cars but not for soils

by Keith Norton*

WE IN THE Northeast can do a number of things to prevent soil compaction, but after it's happened the cure is a long drawn-out process. Even severe frost action will not loosen soil pushed together by heavy equipment.

What is soil compaction? Professor Hugh Wilson, Extension soil conservationist at Cornell University, explains it scientifically as "that point when the pore spaces are reduced so that air and water cannot move as freely through the soil, and the soil is heavier per unit of volume." Uncompacted soil has half pore spaces and half soil particles — what farmers refer to as "mellow."

We are most concerned about soil compaction in the subsoil, for when the subsoil "sets up" it is virtually impossible to remedy. Compacted topsoil, on the other hand, can usually be loosened by plowing.

Recent Research

In summing up the results of recent research, Professor Wilson emphasizes: "We want to make sure that we don't leave the impression that every time we drive a truck or tractor on a field we are raising hob, because we aren't. It's only when the soil is sticky or plastic."

The tires of a loaded spreader truck putting on lime or fertilizer increase soil density in moist soil, but this does not occur when the soil is dry. Research shows that the two most effective ways of reducing compaction from spreader trucks are to reduce the total load or operate only when the soil is dry enough.

A fully-loaded truck of this type weighs more than a four-plow tractor. However, during plowing the tractor wheel puts the pressure directly on the subsoil in the furrow. Therefore, heavy trucks may do less damage than the tractor tire because we are really concerned about the subsoil. The truck weight is spread out by the bridging action of the surface layers of the soil, so the actual pressure per square inch is much less than it is with the tractor wheel directly on the subsoil. All things equal, a soft tire does less damage than a hard one.

More Compaction

Are soils of the Northeast becoming more compacted as the years go by? "Yes, if you paint the picture with a broad brush," Hugh replies. Packing actually began back in Colonial days when the land was first cleared. Livestock were run over the fields, and tillage operations started soil compaction. Just go into the woods and get a sample of "woods dirt" and compare it with soil from a cultivated field — you'll see the contrast.

But the fact that most cropland soil is heavier isn't necessarily harmful unless it becomes so tight that air and water movement is restricted. In fact, a certain amount of firming may actually be helpful.

Measuring Compaction

There are a number of ways to check on soil compaction. Water standing on a once well-drained field, of course, allows an easy "eyeball test." When compaction is suspected but not seen, a gadget called the soil penetrometer is a handy tool. The penetrometer is a prod-like device that records the pressure needed to push it into the soil at different depths. With it compaction in the wheel track can be compared with compaction in the soil next to it — or land worked when it was too wet can be scored against land worked at the proper time.

In answer to the question: "What crops tend to add to soil compaction?" Hugh Wilson emphasizes: "It's not the crop itself but the treatment associated with the crop that can add to soil compaction. Heavy equipment, including a manure spreader, on any wet soil is bound to be harmful. This can happen in orchards as well as with crops such as potatoes, peas, and corn."

Crops that tend to erase soil compaction are the forage legumes such as alfalfa and birdsfoot trefoil. These deep-rooted legumes push their roots into the tight-soil zone below the plow layer.

Lime and Fertilizer

Hugh commented on the effect of lime, manure, and commercial fertilizers on soil compaction. Indirectly, lime is beneficial since it creates a soil condition that is more favorable for legumes. Lime also has a slight tendency to make soil more granular.

Manure is beneficial, too, because it increases the organic content of the soil, and high organic soils have fewer packing problems, provided the soil is not wet when the manure is spread.



When this happens, it's not only bad for the soil, but also hard on one's frame of mind!

As for commercial fertilizers, he said it is hard to see where they have any effect on soil compaction.

Soil is most likely to become compacted when the soil is just a little wet, but not wet enough for equipment to get stuck. Many farmers have been guilty of working land under such conditions when the season is late, trying to "dry it out" — and in so doing have ended up with dust on top and concrete underneath.

Tillage Practices

What about today's tillage practices? Hugh has observed that there is a tendency toward deeper plowing, which is beneficial. Chisels can temporarily loosen compacted soil.

Over-fitting land with heavy disks or harrows, or using them when the soil is wet, can be harmful, because the soil is packed underneath even though it's being loosened on top. Aside from the deeper plows, there is nothing much in new tillage equipment that looks good for curing compaction

(Continued on next page)

* Associate County Agricultural Agent, St. Lawrence Co., N. Y.

VEGETABLE INSECT CONTROL

by A. A. Muka*

IN 1964, vegetable growers will continue to rely on modern chemical insecticides to protect their crops from insects. However, the wrong choice of chemical can lead to condemnation of a grower's entire crop at harvest. Here are suggestions for making the proper choice during the 1964 growing season:

Take advantage of new insect control chemicals; as new materials become available, try each one on a small acreage.

Check Labels

Follow label restrictions and your State insect control recommendations precisely. Never apply any insecticide to a crop which is not listed on the outside of the container. Labels on insecticide containers are not dated, thus last year's labels may list crops for which label approval no longer exists. Be absolutely sure of the present status of every pesticide used; if any doubt exists, contact your local agricultural agent.

* Extension Entomologist, Cornell University

Systemic insecticides, suggested for 1964 use, are available for control of aphids and leafhoppers on lettuce. Di-Syston in the granulated formulation, applied in the seed furrow at planting, will be absorbed and will protect the plant from both aphids and leafhoppers. It is used at the rate of 1 to 2 lbs. active Di-Syston per acre.

Meta-systox R is a newly-labelled and recommended material for aphid control on potatoes. Use at the rate of ½ lb. active material per acre, up to 7 days before harvest.

Much of the judgment necessary to prevent misuse of pesticides rests in the hands of the grower.

Don't use endrin on broccoli, cabbage, cauliflower, or Brussels sprouts at any time during the season. The federal label no longer allows endrin to be used on crucifer crops. The New York State College of Agriculture does not recommend the use of endrin on potatoes in 1964, nor does it any longer recommend the use of dieldrin on cucumber, muskmelon, pumpkin, squash, or watermelon.

Diazinon is not recommended for use as a seed treatment on onions. It is, however, recommended as a drench or granules in the furrow at planting time.

Do not feed an insecticide-treated crop (especially DDT-treated sweet corn) to lactating dairy cattle or cattle being finished for slaughter. Do not graze these cattle on harvested cabbage fields which received insecticide treatments unless specifically provided for on the label.

Entomologists believe that growers could do a better job of getting insecticide coverage on the crop to be protected. With such difficult insects as the cabbage looper and corn earworm, specialized application equipment must be used to insure that the insecticide thoroughly covers both sides of the leaves in the case of the cabbage looper and the silks in the case of the earworm. Because restrictions now eliminate some of the more effective insecticides, increased attention to better coverage can spell the difference between good and poor insect control.

(Continued from opposite page)

after it has happened.

In preventing compaction, though, there are a number of tillage practices with fairly recent emphasis. Minimum tillage really means "work it only as many times as you have to;" this may vary from once to many times. Many a farmer will tell you he fits land less nowadays than he used to.

The plow-plant method hasn't really gone very far in the Northeast as a whole. Wheel-track planting is being used by some larger corn growers, but it's not taking the region by storm. The plow with a clodbuster hooked behind does seem to be going places, though. This method of plowing, and doing some fitting at the same time, is often half of the tillage done on some well-drained cropland.

From a preventive standpoint, the use of dual tractor tires can also be very beneficial.

The size of the tractor doesn't seem to make any difference, since tractor manufacturers use different-sized tires so that the unit weight on the soil is about the same. Strangely, the larger tractor may have a slight edge, since it can pull larger, wider equipment, and that means fewer trips over the field.

Hugh sums it up: "Prevention is the best cure for soil compaction. With this in mind, be sure to heed these six points:

Keep off land when it's wet; do not overfit; avoid unnecessary wheel traffic; sow lime in midsummer when soil is dry; pile, instead of spreading manure when fields are muddy; and plant legumes."



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R. W. Kleis

*Head, Agricultural Engineering Department, University of Massachusetts.

Away With Hay???

by R. W. Kleis*

An agricultural engineer takes a look at harvesting forage in the future and wonders whether the Northeast will stay with hay.



The author points out that handling roughag as silage can already be entirely mechanized.

HAYMAKING METHODS and related problems have been the targets of much research by public agencies and private industries. These efforts have resulted in improvements — but basically the age-old problems of haymaking still exist — namely, curing and handling.

Curing problems caused by weather, resulting in sun bleaching, rain leaching, mechanical shattering, and in-storage spoilage, have been somewhat reduced by conditioners, driers, and equipment of greater capacity and reliability, which have reduced exposure time. But these developments bring a set of limitations of their own. Furthermore, increased yields and earlier harvesting, while highly desirable, tend to offset the gains provided by new equipment and re-establish the severity of the curing risk and losses.

Recent Developments

Problems of labor and costs in handling have been easier to solve. In recent years, development of hay bale throwers, loaders, bunchers, unloading vehicles, elevators, conveyors, distributors and feeders, have eliminated much of the drudgery and time involved in handling — but not completely, or without substantial investment.

From the standpoint of handling efficiency and elimination of several handlings, baled hay has shortcomings, but for several reasons baling is the process used on most farms.

Much enthusiasm and optimistic writing about wafering has appeared in the last five years. The development of principles and machines for making hay wafers (not the smaller, more dense, commercially-made pellets) in the field has been given attention by several Experiment Stations. Farm equipment companies have been pressing for rapid development, but there are indications that their enthusiasm and optimism are diminishing somewhat.

In 1963, I accepted a special hay wafering project assignment with the University of California. This involved the observation and analysis of several large farm operations in that State which are using wafering, and taking a look at methods and equipment for handling, cooling, transporting, storing and feeding wafers.

The acceptance of and enthusiasm for wafering in that region is impressive. Large-operation dairymen who purchase the wafers are pleased with production performance and the mechanization of handling and feeding. The trucking firms see real advantage to the increased load density and bulk-handling potential. The hay producers are having some operational problems, but wafering is extensive enough to demonstrate future potential for that region.

But conditions in California are vastly different from those in the Northeast. Their fields are large, level, regular in shape, and free of stones. Irrigation provides uniformity of crops and freedom from soft field conditions; the arid climate provides rain-free field-curing.

Very little hay is fed on the farm or even in the locality where it is produced, so that transportation bulk and cost are major factors. The farms are very large and heavily mechanized; labor is largely unionized and very costly.

Not The Answer

Wafering as now conceived and practiced is not a practical answer to haymaking problems in the Northeast. There are many reasons why I reluctantly arrived at this conclusion, but three major ones relate to (1) field curing requirements; (2) machine size and cost; and (3) wafer handling and storage problems.

The moisture content of windrowed hay for effective field wafering must be reduced to about 15 percent. Recall now that baling is normally safe at 20 percent moisture, and that getting hay cured to this level is the major problem in the humid Northeast.

The removal of an additional 5 percent moisture is considerably more difficult. There are extended periods during haymaking seasons when even if fortune eliminates rain, the humidity and ground moisture conditions are such that hay just doesn't dry down to 15 percent moisture.

High Cost

The cost of wafering machines ranges to about $28,000 for self-propelled units and about $24,000 for pull-type units. These units have capacities of two to six tons per hour. In desert conditions, they may reasonably expect to work a machine 20 hours per day (shutting down when moisture goes too high between the hours of 3:00 and 7:00 a.m.) nearly every day for many months of the year. It is impossible to obtain such usage in humid areas with shorter cropping seasons.

The third major problem is the general misunderstanding of the handling behavior of wafers. Contrary to popular dreams, they

(Continued on opposite page)

Right:
In areas where wafering hay is practical, materials handling is simplified in comparison to bales.

Below:
This is the business end of a waferer where the squeeze is applied to hay.





do not flow like a fluid, nor even like grain or pellets. In large bulk quantities they handle reasonably well; e.g. dumping from lifted truck beds, handling with skip loaders, etc. But flow from openings, hoppered bottom bins, etc., is extremely troublesome because of bridging and "hang up." There is also the problem of wafer disintegration as a result of multiple mechanical handling. If allowed a choice cattle will not eat the fine stuff.

Research continues and hopefully will produce more effective and efficient wafering procedures, but at present there is no basis for assuming that wafering will relieve haying problems in the Northeast.

What then does hold promise in this region for more efficient forage harvesting, handling and utilization? Artificial drying, either with heat or natural air, continues to be a practical process for some operations. Hay drying is not new, so if it is an answer why is it not more accepted?

There are several reasons, most of which are not valid. The cost is often considered out of line, but this conclusion is usually based on lack of realization of the pitifully poor quality of much of the hay made with field drying. The management of driers, particularly with heated air, worries many potential users; they are neither that mysterious nor complex. Hauling and handling the extra water in high-moisture hay is of little consequence in completely-mechanized handling.

A real disadvantage of artificial drying is its effect on the harvesting and handling procedures. Theoretically, hay is cut in batches to match the daily capacity of the drier, but rather consistent weather is necessary to maintain this schedule of operation.

If the weather for field-curing were that consistent, the major need for artificial drying wouldn't exist. More days than not there will be either no hay or too much ready for the drier. But in spite of these problems, artificial drying is practical in many operations.

Chopping rather than baling hay ahead of a drier simplifies handling and allows complete mechanization of handling from field through drying and through storage to the manger. Chopped hay does involve problems of dust and greater bulk; long chopping is recommended.

Eliminate Hay?

The most practical answer to haymaking problems appears to many farmers and agricultural advisors to be "eliminating hay" as such. In recent years, an increasing number of successful dairymen have gone to complete silage feeding — grass, legumes or a combination of these with corn silage.

Some question the adequacy of dry matter intake of cows fed only succulent forage; some also experience problems in making consistently high-quality silage from grass and legumes; others say there are no problems. There has been a rapid increase in interest in and use of haylage (otherwise referred to as "low-moisture silage," "high dry-matter silage," or "intermediate-moisture forage").

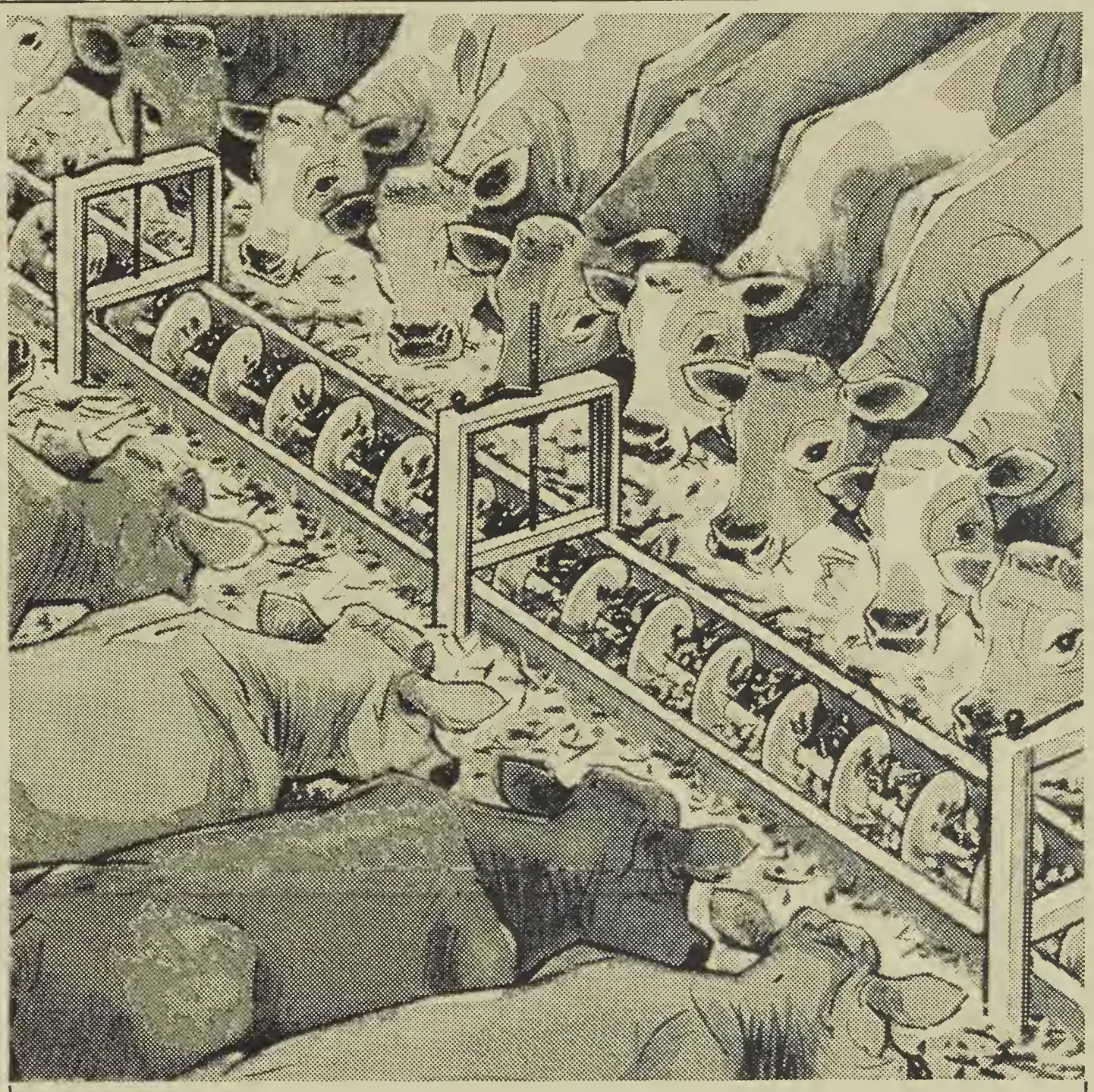
An impressive increase in the use of haylage in dairy operations has been observed during the past couple years. There is every reason to expect this practice to expand in the future.

Some people think of haylage as a modified form of silage and as a replacement for silage in a hay-silage forage ration. In most actual farm operations involving haylage, however, it is incorporated as a replacement for both hay and silage.

Haylage has several important advantages when considered as a substitute for hay, or for both hay and silage. Major ones are:

1. Single harvesting and handling system — eliminates dual equipment lines and reduces inventory and investment.
2. Single storage and feeding systems — silos only as compared to silos and mows — single feeding operation.
3. Complete mechanization with minimum investment — haylage handling can easily be completely mechanized.
4. Less weight to handle compared to "regular" silage — approximately one-half.
5. Field-curing risk reduced to a minimum compared to hay — similar to artificial drying in this respect.
6. Flexibility of operation — moisture can range from that of hay to that of silage — no limit on harvesting rate.
7. Desirable properties — odor compared to silage — no dust or shattering problem — soft palatable forage.
8. Production performance — studies show haylage equal to or superior to hay and/or silage.

Both research and extensive farm practice have demonstrated that haylage can be successfully and consistently made in conventional masonry or metal silos. Wood silos are not generally recommended for haylage; trench or stack silos are questionable. Specially-designed "sealed" silos are, of course, excellent units.



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Gayway Farm Notes

by HAROLD HAWLEY

THE WIDE OPEN SPACES

Since last fall we have been drawing rough sketches and making mental pictures of how the proposed addition to our barn would look, just where it should be, its size and shape, the location of doors, etc., etc. It seemed as though every proposal we tried had disadvantages.

To start with, the present barn is a "bank barn" — built into a slope. It runs east and west, with the silos along the south side. We had thought to put the addition on the west end running north and south to form a sort of a T. Then we could build a milking parlor next to the present milk house and drive the cows from the present stanchion barn as well as from the new part (whether stanchion or free stall).

Nothing is impossible if one is willing and able to spend enough (which we aren't). A barn on the end of the present one would foul up putting in hay. We just last year completed a mow conveyor system which works fine. The barn cleaner ramp plus a creek draining from our pond is at the other end. Of course, this could be bridged.

To have the addition run north and south meant digging into the bank to a depth of 7½ feet at the south end. This precluded driving through, and posed some additional headaches about getting cows in and out where we wanted them. Likewise, we had wanted to line the additional silo storage with the present ones in order to use an auger. We had thought to feed all our silage in a bunk in the addition.

Well, I could go on — a list as long as your arm of problems and partial solutions and extra expense and we'd still have an unhandy, patched-up deal.

Start Over

At about this stage somebody suggested it wouldn't cost much more to start over in a new level spot to build an up-to-date home for our milkers with a place to milk them that would be handy. So here we go again! We began to spend our spare time during February and March visiting new barn set-ups, reading about others, and studying plans, etc. All this time we were getting out logs for the lumber. It's real frustrating to have a bunch of tree length logs skidded out of the woods and not want to break them up into lengths until you know what you are going to do.

Eventually, we convinced ourselves the cost wouldn't be beyond repaying and the saving in labor would justify going to a brand new building — free stalls, milking parlor, and all. The present barn would then give us a chance to have additional box stalls, maternity stalls, and housing for dry cows. It's interesting to reflect on the changes in our reasoning as we went along. I'm not quite sure if there isn't a wee bit of the same illogical logic we use when we get to "needing" a new car!

At any rate we headed for a new location where we have room to do as we wish — the wide open spaces!

LOGISTICS

In the military, the art and science of getting men and material moved and armed and provided for comes under a special heading — logistics. I'm not sure what the word is for a civilian endeavor. Maybe chaos. We bought a new silo in February, with provision it be here and up in time for filling with haylage. Not until April 20 did we finally drive a stake and decide that was to be the spot for the silo. All of you who have been through this know how much backing and filling there is before you finally get most of the compromises and decisions made. Maybe once the concrete is poured we can quit making "adjustments" in our plans and start making some headway. It is, of course, essential and cheaper to get the bugs worked out while the barn is still on paper (or as many of them as possible). Enough of this planning and changing and studying would prepare a fellow for a strait jacket after a spell.

VOLUNTEER LABOR

It's easy to get the notion we are a money-mad people when we read of labor unions negotiating a contract, or when we hear ourselves haggling for a little better price for something we have to buy or sell. It's true we all want as much as we think we deserve.

On the other hand, do you know of any group of people giving as much of their time and effort as does the American public? Start with our churches. There are volunteer officers, Sunday School teachers, musicians, and not to mention the women who, in order to raise some money for something the church needs, will come early and stay late to put on those delicious church dinners. Then there are the thousands of non-paid political people who give unstintingly to help elect their party's slate.

Where does one stop? The list of free labor contributed by dedicated people goes on and on. School boards, chamber of commerce people, the folks who man the multifarious drives — Cancer Crusade, March of Dimes, Community Chest, Heart fund — etc., etc. Most of our farm organizations are manned from top to bottom by volunteers. In a few instances, so much time and travel is required of directors that they may get expenses and/or per diem, but the vast majority of the work is done gratis. Then there are the Scout leaders and the 4-H Club leaders and hospital aides, and all sorts of advisors.

All aside from the fact that certainly much, much good work gets done which could be done in no other way, there is a tremendous additional reward. Think of the thousands of people who find an outlet for their talents and their spare time in these various activities. They are ultimately the winners, too. The experience and growth, the friendships made, the satisfaction in having worked at a worth-while project, yes, even the recognition received is good for the soul. All people surely at one time or another feel the need of knowing others approve and appreciate.

It may be one of the more fortunate happenstances of our society that there are so many ways for each of us to serve our fellowmen.

MILK AND DAIRY INSPECTIONS

After spending a little time in South America (where I did not drink milk) I said that never again would I criticize milk inspectors. The simple facts are that without some rules and standards, our product — like a lot of the milk produced "south of the border" — would not be such as to encourage consumption. Of course, our disease eradication programs have gone a long way to make our milk safe. However, unless our milk is of highest quality every day we can't hope to expand our market. Let's face it — it's not always that good.

In theory, at least, inspection and health standards will assure the consumer top-notch products. I only wish it was this easy. There is still a big gap to be filled by the attitude and effort of every dairyman, plant manager, and retail store manager.

There is little doubt that New York dairymen will go under the U. S. Public Health Service Milk Code in the not too distant future. Much of what will be required is in the nature of better housekeeping; some of the other requirements are pretty much unrelated to milk quality. I keep thinking what a big public relations job the U.S.P.H.S. people could do if they put a few farmers on the committee drawing up the code. Regardless of what they came up with, other farmers would think more kindly about regulations farmers had helped to draw up.

The next point that would certainly improve attitudes about inspection would be uniformity in administering any code. Too often, sanitarians for dairy co-ops, anxious to maintain membership, have overlooked or disregarded things that a neighbor would be made to change. This does not make for good producer attitude toward codes or inspectors.

I keep reminding myself that all this inspection and these codes are for our own good. Anything which protects the consumer and gives her a high quality, acceptable product is good for us; it's a first and basic step to selling more fluid milk. In the last analysis, however, the kind of milk we make is still a matter of individual responsibility — and I hope we are taking this seriously. Just as there is no tolerance for antibiotics, so also there should be no tolerance for less than top quality.

Dates to Remember

June 3 — Annual meeting Eastern Milk Producers Cooperative Association, Hotel Syracuse, Syracuse, N. Y.

June 6 — Steuben Dairy Festival, Bath, N. Y.

June 18-20 — Annual Delmarva Chicken Festival, Easton, Md.

June 22-23 — NEPPCO Egg Marketing School, Cornell University, Ithaca, N. Y.

June 23-26 — NEPPCO Egg Quality School, Cornell University, Ithaca, N. Y.

June 29 — Eastern New York Goat Club Official Dairy Goat Show, Fair Grounds, Schaghticoke, N. Y.

June 29-July 3 — Beef Cattle tour, sponsored by the Extension Service and the Cattlemen's Association. (N. Y.)

June 30 — Pennsylvania Grassland Council Field Day, University Agronomy Research Farm, State College, Pa.

July 1 — First day to file Federal Gas Tax Refund application for 12-month period ending June 30, 1964.

July 2 — New York State Association of Teachers of Agriculture and Professional Improvement Conference of Agricultural Teachers, Agricultural and Technical Institute, Farmingdale, N.Y.

July 7-8 — Poultrymen's Get-Together, Cornell University, Ithaca, N. Y.

July 10-11 — Maine Broiler Festival, City Park, Belfast, Maine.

July 11 — New York Angus Association Field Day, Meadow Lane Farm, North Salem, N.Y.

July 18 — Hereford Association Field Day, Lockport, N.Y.

July 29 — State Plowing Championships, Daniel Rumler Farm, 7 miles west of Chambersburg, Pa.

August 1 — Maine State Dairy Show, Windsor Fairgrounds, Maine.

August 1 — Windham County Farmers Field Day, Wheeler Farm, Wilmington, Vermont

GENES ACROSS THE SEAS

by Robert Cudworth



Bob Cleverley, third generation on this Central New York farm, shows the cow whose bull calf was donated to the Heifer Project as part of the shipment to St. Vincent's Island.

SINCE 1944, Heifer Project, Inc. has sent 945 shipments of top quality livestock and poultry to 73 countries. The farmer who gets the livestock promises to give first-born offspring to someone else in need. So the gift serves doubly as seed stock.

One of the latest shipments of "genes across the seas" left Baldwinsville, New York, bound for St. Vincent's Island, in the West Indies. It consisted of eight Holstein bulls and six heifers, all registered.

An Example

An excellent example of the good Holstein breeding being shared with the St. Vincent's Islanders is the young bull calf donated by Olin Cleverley, son James, and grandson Bob, of Warners, New York. The young bull is a descendant of the original cow from which Olin started the present herd back in the 1920's. Purchased at a dispersal sale in Weedsport, she was the first of many top producers.

The bull's dam is a first calf heifer who seems to have excellent potential. Her mother shows a total of 78,660 pounds of milk and 3,034 pounds of fat for five lactations; her best effort in one year was 18,080 pounds of milk and 682 pounds of fat.

For each of the past two years this herd of 45 milkers has averaged more than 600 pounds of fat. DHIA figures for the year ending April, 1963, showed a herd average of 17,543 pounds of milk and 654 of fat.

How do they get this kind of production? As with all dairy herds, part of it is beginning with good cattle; part depends on management and feeding practices. The Cleverleys feed heavily on grain, good silage and good hay; as much as 30 pounds of grain is fed daily to the top producers.

In summer, the Cleverleys keep supplemental feed in front of the cows most of the time, with hay in the barn and grass silage in pasture feed bunks. The ration of corn and cob mixed with corn distillers' grains, soybean oil meal, and a vitamin-mineral supplement is ground right on the farm. Protein level figures out to about 13 percent.

Corn Important

Corn grows well on this farm; some 50 acres go in the crib and 20 acres into the silo. They strive for plant population of about 21,000 plants per acre...use atrazine to keep down weeds...and fertilize heavily. Where corn followed corn they used 100 pounds of ammonium nitrate per acre. Then all corn ground received 400 pounds of 10-20-20 plowed under, and 300 pounds of 12-12-12 at planting.

Use Dumping Station

The Cleverleys have a bulk milk tank, and for the past year have used a dumping station to speed up milking. When they put in the dumping station, they were told they could each handle another milking unit. They decided, however, to continue handling two units each and doing as good a milking job as possible. They believe that extra attention during milking pays off.

With the potential provided by the "superior genes" of the Heifer Project animals, like those from the Cleverley farm, the livestock industries of many countries have promise of looking up. Anyone desiring more information on the program should contact Roger H. Cross, Sr., Green Lakes Road, Fayetteville, New York.

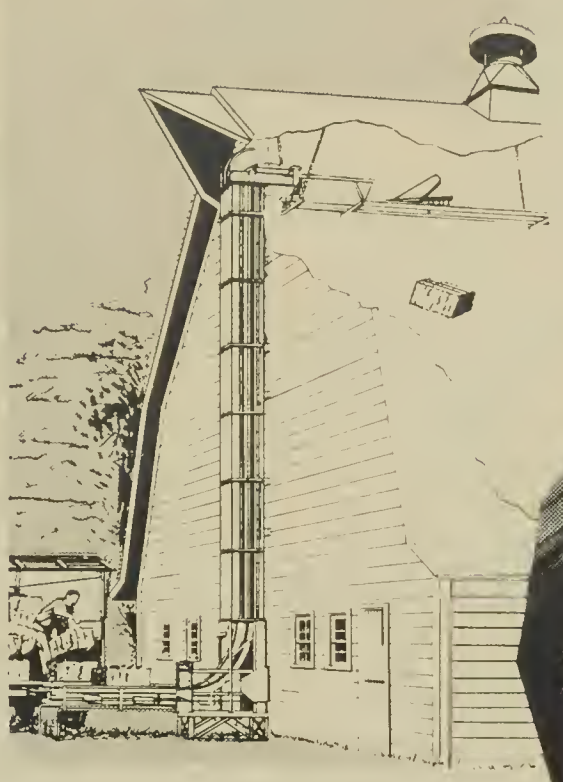
PROBLEM WITH LOW MOISTURE SILAGE

One problem with low moisture silage, the newest thing in feeding forage, is that it sometimes "gums up the works." A gummy deposit of plant juices and cell material is left on the machinery used for harvesting and for loading and unloading silos. The gum hampers machine operation and takes more power — and in silo unloaders, particularly, the machine may stall because of the heavy deposits.

The only way to cope with it is to wash the machine parts with water. That's a lot of work, and what is more, it would be almost impossible to wash a silo unloader in winter.

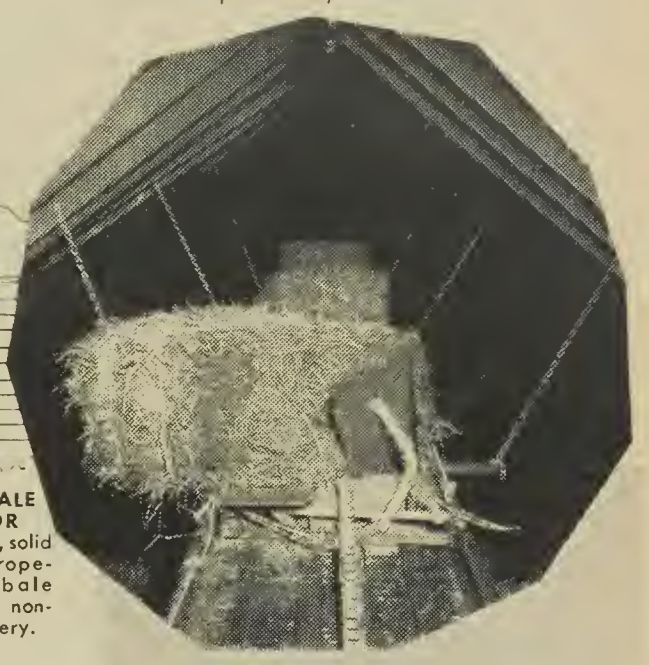
Solutions are being looked for, but nothing has come up yet.

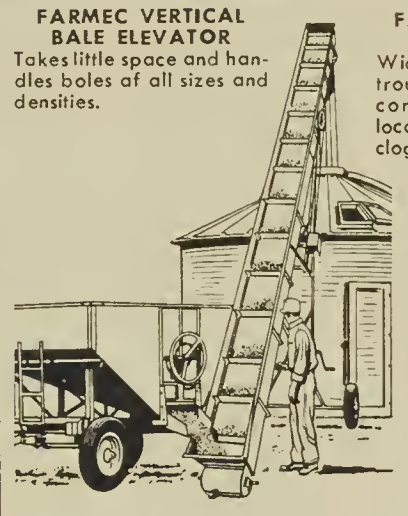
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POLLARD "540" — 5 wheels, up to 7'3" swath. Saves hay **and saves** you up to $100 when you buy it!

Wheel rakes rake faster, cleaner, with less leaf loss, over all kinds of ground—in all kinds of hay, light or heavy. Pollard gives you all the features of other wheel rakes—at very low cost—**plus:**

- **Ball bearings in raking wheels**
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Heavy-duty "48" series can be tailored to fit your haying requirements. Available with choice of five, six, seven or eight raking wheels, to rake up to 13'.



#600 Pollard Tractor-Mounted, 2-Wheel Windrow Turner can save a crop—hay or grain—turns up to 4' windrows leaving the wet side on top for quick drying—speeding the time to baling or combining.

PROFIT WITH POLLARD

POLLARD DIVISION OF DAFFIN CORPORATION
Hopkins, Minnesota

Every Acre Counts

By Lester Fox



William Wais (left) and SCS technician Frank Leavitt enjoy a shady spot overlooking the pond and orchard.

William R. Wais of Slingerlands, New York, figures he will net as much income from ten acres of apples and two acres of pears as he has in the past from 62 acres of fruit. How? By retailing the entire production on the premises.

"Wholesaling is an expensive operation." Mr. Wais says. "The margin of profit for the grower is too small. Retailing will do away with the cost of operating and maintaining my cold storage plant and packing house, and I won't have to worry any more about finding competent workers."

What is Bill Wais doing with the 50 acres he has taken out of fruit production? He's putting in a 9-hole golf course — the third recreational enterprise to be installed on his 115 acres. His aim is to make the place a complete recreational center that will fill a need for the people of nearby Albany and its suburbs, besides making his entire acreage productive.

The Beginning

Bill's first recreational enterprise, opened in 1960, was the Tall Timber Day Camp. For that he lopped ten acres off his orchard, built modern buildings, installed play areas, and dug a 5-acre pond. The first year it had a total attendance of 60 youngsters, ranging in age from four to fourteen years. Since then attendance has increased each year, going well over 200 in 1963. Sessions last for two weeks, and many of the children take in more than one, some taking the full eight-weeks course. Fees are $55 for the first two weeks, $100 for four weeks, $190 for the full season. Two or more children from the same family get a discount.

Bill estimates his investment in the day camp at $65,000, plus $12,000 for the pond. His weekly payroll is $1,200, for a staff consisting of directors for the waterfront, physical education, and arts and crafts, a nurse, 12 senior and 25 junior counsellors. The number of counsellors increases as attendance grows.

After the pond was built people in the neighborhood started coming in for a swim. "Why don't you start a swim club?" some of them asked — and Bill did, naming it the Tall Timber Swim and Recreation Club. He put up a large bathhouse with spacious shower and dressing rooms. A 300-foot-long sun deck along the pond's edge makes a perfect place to get a good coat of tan, or to watch the swimmers and divers. Lumber for the sun deck and most of the recreational buildings came from the woodland on the farm.

The swim club opened for its first full season in June, 1963, and by mid-season had a membership of 21 families. The initiation fee is $50, plus $75 for one member of a family, $45 for the next, $25 for the next, and $20 for each additional member. There's no charge for children under two. The initiation fee is paid only once, and it covers the whole family.

There is a beach director in charge of the swim club activities, and he has four assistants, all qualified lifeguards. In addition, two lifeguards patrol the beach area.

As soon as the beach area was completed, Bill built a 50 x 84 foot pavilion in an adjacent woodsy area, which houses a snack bar, a barbecue pit, large fireplace, and wash rooms. At least four employees are needed to run this. Nearby are a picnic area, parking lot, and an acre of smooth blacktop for dancing, volleyball, handball, badminton, and other diversions, with skating as a winter activity. All of these facilities may be used by swim club members without additional cost.

Golf Club Next

With the 1963 harvest out of the way, Bill began clearing the 50 acres to make room for the Tall Timber Golf Club, which he expects to be ready for play by 1965. He figured the cost of clearing, grading, building three ponds for hazards, sub-irrigating and seeding fairways and greens at $95,000, later he plans to put up a clubhouse.

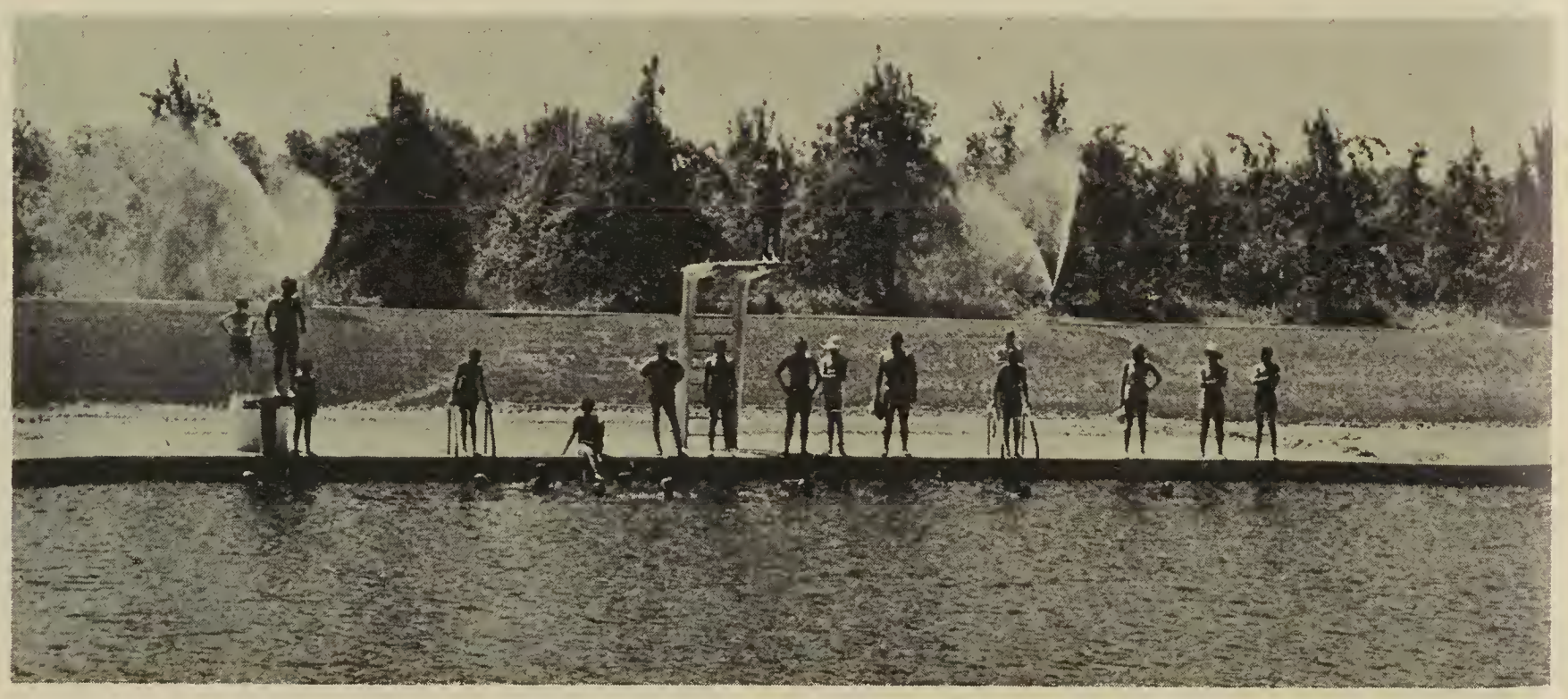
Bill was originally in the commercial refrigeration business in Albany and Schenectady. "In my refrigeration business," he says, "I came in contact with orchardists, and decided to get an orchard." That was twenty years ago.

"The orchard was run down," he recalls, "and it took me six or seven years to bring it back. It took five years to increase production from 6,000 bushels to 25,000 for the 70-acre orchard; today I get 500 bushels to the acre, and I'm aiming at still higher yields on the 12 acres I'm keeping in fruit." In restoring the orchard to its potential productiveness he had the help of the county agricultural agent, and picked up much helpful information from Extension Service bulletins.

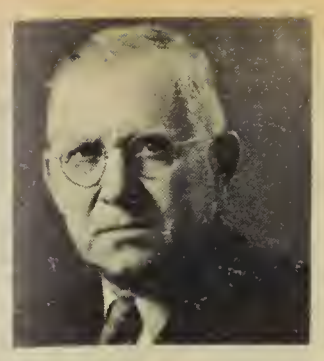
In 1948 Bill became a cooperator with the Albany County Soil Conservation District, and agreed to put all of his land under a conservation program. To drain wet soils he installed a tile drainage system; he has limed and fertilized the land in accordance with soil tests (most of the soil is Hudson clay loam). For irrigation water he built a pond, and then another small, shallow one for a unique purpose — to warm the water on a big, spring-fed recreation pond!

Diversion ditches have stopped erosion by directing runoff water to a safe outlet, otherwise the excess water would pour down the slopes, taking top soil, fertilizer and lime with it. Sub-soiling loosens heavy soil and lets water soak to the root zone. A hay mulch around the fruit trees conserves moisture, discourages weeds, and moderates the soil temperature.

The recreation developments, Mr. Wais points out, have provided new jobs, and helped the local economy and that of the surrounding communities. "That's one way of taking part in the development of rural areas," he says. Financial assistance came from the Farmers Land Bank and Farmers Production Credit Association of Eastern New York in Albany.



Water finds many uses at the Wais farm — including a swim area at the Tall Timber Day Camp and the irrigation system in the background.



Assessment Amendment Signed

by Amos Kirby

New Jersey Editor

NEW JERSEY'S farmland assessment amendment has become a reality. This means that, with the signature of Governor Hughes, it will be possible to have farmland assessments based on productivity. Purchase of land for speculative purposes, industrial purchases, and suburban development will not affect the assessment on adjoining or nearby land so long as the land is kept in active use for the production of crops.

There are many other features to this program of both direct and indirect benefit to farmers. These points are being adequately explained by Farm Bureau and Grange committees during the coming months. The enabling legislation will apply to taxes and assessments for 1965, with adjustments based on the assessment period which starts October 1 of this year.

Dairy Legislation

By establishing a Division of Dairy Industry in the Department of Agriculture, the New Jersey Legislature has taken milk out of politics. The Division, with a six-member advisory committee (subject to regulation by the State Department of Agriculture) represents producers, distributors, and the consumer. By mid-summer those concerned with one phase of the dairy industry or another should be in a position to determine if fair pricing and stability can again be established.

Here and There

Labor — New Jersey growers who have been using Puerto Rican workers for many years are likely to face competition in recruiting. An interview with William G. LaTourette, general manager of the Garden State Service Cooperative Association, Trenton (the group that recruits and brings in workers) outlined the problem.

Mr. LaTourette told me that California is seeking 200 Puerto Ricans to come to California on a full year basis. They are offering an incentive in the form of bonuses. If the worker will stay four months he will receive a bonus of $130; if he stays six months or longer he will receive $225 toward his return ticket.

If this pilot project is successful, California intends to start more ambitious recruitments in the late fall or early winter. Prevailing wages in most areas in California are at least $1.25 an hour.

In Mr. LaTourette's opinion this means that New Jersey is going to face "big-league" competition for its traditional sources of labor. There are those who think that the high cost of transportation will discourage California growers from seeking Puerto Rican workers; there are others like Mr. LaTourette who are convinced that the West Coast farm labor supply has been so cut back by the restrictions on Mexican workers that they will do everything possible to make up the shortage, including seeking workers from Puerto Rico.

Blackbirds — I visited the Woodstown Vocational School to inspect the new blackbird trap being developed there under the direction of agricultural instructors Emil Friz and Franklin Miller.

The first traps are due to be delivered to State-Federal agencies located at the College of Agriculture, who will use them in research. A most interesting approach to a baffling problem.

Air Pollution — Fruit and vegetable growers are being faced with another baffling problem, that of air pollution.

Dr. R. H. Daines, plant pathologist at the New Jersey Experiment Station, pointed out that air pollution is showing up as milk-white spots on spinach, gladiolus, parsley, cucumbers, onions, potatoes, and many other crops. It is now apparent that automobile exhaust fumes and other air pollutants are creating problems in widely-separated areas that are taking an economic toll in ruined crops.

Purely Personal

Burlington County folks have honored their County Agricultural Agent with a testimonial dinner. Dan Kensler has spent 25 years in the Extension Service in Burlington County, and the folks just wanted to show their appreciation for his outstanding leadership. I was unable to be at the dinner, but Dan has been one of my most loyal cooperators in my radio work, and in my writing for American Agriculturist.

YOUR GLF CONSUMER PRODUCTS REPORT

NEW freezers with space-saving new Urethane insulation offered at sale prices.

NOW!!

New GLF *Unico* Freezers give you greater storage capacity in less floor space than ever before

Now you can get the storage capacity of big farm freezers in the floor space needed for most apartment-size models.

For example, this year's GLF *Unico* 20 cu. ft. upright freezer fits in even less floor space (only 32″ x 26 3/8″) than many 17 cu. ft. units (such as our 1963 model). The extra net storage capacity is good for 115 more pounds of food. Price difference? They're within eight dollars of being the same... and our 20 cu. ft. freezer is $28 lower during the special June Freezer Sale.

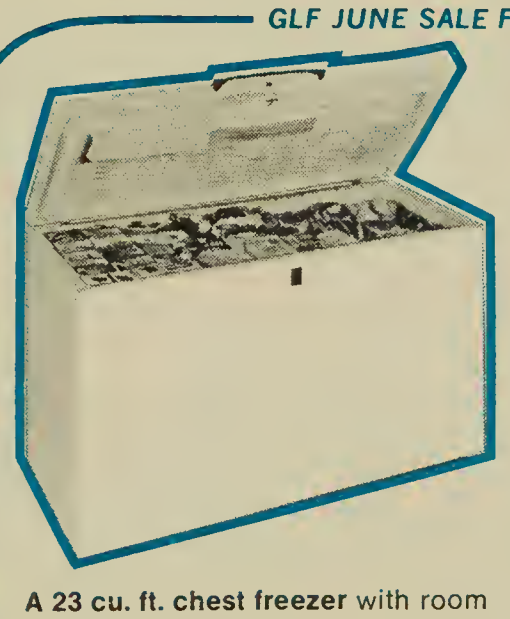
New Urethane "foamed-in-place" insulation makes this possible because less thickness is required to provide maximum insulating efficiency. The thin-wall construction increases net storage capacity. And it will not deteriorate, settle, or absorb moisture. You get more storage space in a compact cabinet that's stronger than ever before.

Now you can have your choice of three new models at special prices during our introductory sale. Nothing has been cut but the price.

All cabinets and components are guaranteed for one year; and compressors are warranted for five years. Your freezer carries a free warranty against food spoilage for five years up to a maximum of $250.

Remember, this big introductory sale ends June 30. So hurry down to your GLF and take advantage of the low prices on the freezer that's right for your family and your budget. We'll be glad to arrange liberal financing.

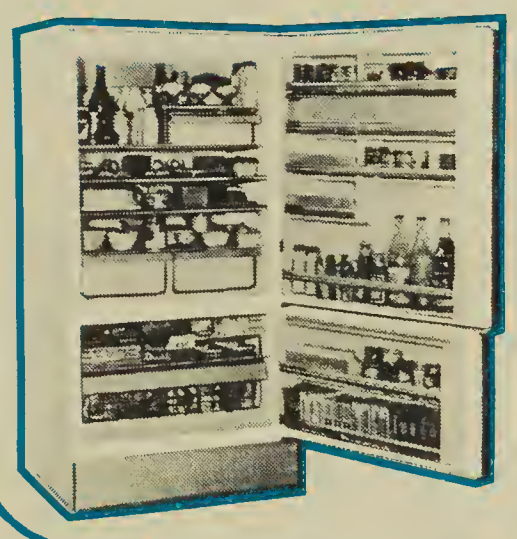
GLF JUNE SALE FEATURE VALUES



A 23 cu. ft. chest freezer with room for 805 pounds of farm-fresh foods reduced to **$239.95.** ($23.95 down) You save $45.00. It has a counter-balanced flex-lid with magnetic lid seal, lid lock, lift-out baskets, and automatic temperature controls.



A 20 cu. ft. upright freezer with storage for 701 pounds of good home cooking. Also priced at **$239.95.** ($23.95 down) You pocket $36.00. Like all GLF freezers, it has an extra coat of baked-on enamel and our famous "whisper-quiet" condenser.



A deluxe 18 cu. ft. frost-free combination with two appliances in one cabinet. We have used 13 cu. ft. for the refrigerator and the remainder for a freezer compartment with room for 175 pounds. Your price is **$369.95.** ($36.95 down) Save $60.00. You get slide-out crispers, basket, sliding door snack-bar, "bookshelf" door storage—a place for everything, including an ice bucket and ejector trays. It never needs defrosting.

Cooperative GLF Exchange, Inc., Ithaca, N.Y.

GLF Quality

QUALITY CONSUMER PRODUCTS

MILK BY THE TON

by Hugh Cosline



Forrest and son Bill beside the "pay-off point" for their dairy program.

PRODUCING 672,500 pounds of milk in a year from 45 cows, with a man equivalent of 1.6, is worth telling about! That's what Forrest Leach of Jasper, New York, did. Most of the labor was family help, too, with less than $1,000 paid out for labor.

The results came from a combination of good cows, good crops on hill land, and good feeding, all hooked together with good management. Let's take a look at the cows first, producing at the rate of 15,000 pounds per cow per year.

"We seldom have a cow that gives 100 pounds of milk a day," says Forrest. "But they don't drop in production as they did some years back. It's steady, day-after-day production that counts. The herd is bred artificially, and I am sure that it has helped to raise the herd average."

Because Forrest is enthusiastic about free choice stalls, let's hear his ideas about them before we get into feeding and management:

"I first read about free stalls in a farm paper, and the idea made sense to me. I never was interested in pen stables, but with cows in stanchions and with a milking parlor (which we have had for four years) milking was a two-man job. Now I can do it alone, milking three cows every five minutes.

"So, two years ago we tore out the stanchions and put in free choice stalls. There is considerable waste space ahead of the cows, because it seemed best to put the stalls where the cows stood — but the change didn't cost much. We sold part of the barn cleaner and the stanchions, also rubber mats, which helped pay the cost.

"Production has increased," he continued. "I don't give all the credit to the stalls, but I do give some. The cows are more contented, and they suffer less injury. I also find body condition holds up better.

Raises Replacements

"We raise our own replacements, and I want to get where I raise only eight heifers a year. I kept ten heifers this year, and eleven a year ago. The oldest cow is 13, and I have several that are 9 or 10. Failure to breed and injuries take most of them out, and I feel sure that free stalls will keep them in the herd longer."

Forrest and I discussed feeding at some length. The farm has an elevation of around 1,500 feet, and the soil is heavy. In spite of this, considerable alfalfa is grown, partly as a result of some diversion ditches. "I use a seeding mixture of alfalfa, birdsfoot and timothy, and in some areas where the only clover that would grow is alsike, alfalfa now crowds out the birdsfoot," said Forrest.

In the past the herd was pastured, but gradually more and more roughage was brought to them until now only heifers and dry cows are pastured. Incidentally, one thing which hastened this was pulling out fences to put in diversion ditches.

"We may feed a little green-chop," Forrest explained, "but corn silage will be fed the year 'round."

There are two silos (14' x 40') which unload into a bunker, and another (12' x 24') used to feed heifers.

"I wish now I had torn down the 14' x 40' silo I had and erected a 20' x 50' instead of another 14' x 40'," said Forrest.

Starts June 1

Haying is started about June 1, and the goal is to finish by June 25. Hay is crimped, kicked into a self-unloading wagon, and random-piled in the mow, where a fan helps rapid drying. Forrest says they can get the hay in with half the help it once took, but they are going to try growing more corn and less hay.

Good crop yields are important. In addition to the manure, just about every field gets some commercial fertilizer some time during the year. After the first cutting meadows get an application of 0-20-20. Corn is fertilized, and so are the pastures.

The grain ration is custom-

(Continued on page 22)

YOUR GLF PETROLEUM REPORT

- how farmers and GLF work together to make a good product better
- new passenger car motor oil can reduce repair bills, prolong engine life

42.2% more farmers and truckers are using GLF new Green Diesel Fuels now than ever before.

Here's why:

• When a farmer has something to say about his business, we listen. That's our job.

And over the past few years, farmers have been telling us they needed a diesel fuel capable of keeping operating and maintenance costs down. Others noticed they were losing engine efficiency and power when pulling loads were varied.

Problems such as gummy injectors, rust, corrosion, smoke, soot, and cold weather freeze-ups, made the argument for a new and improved farm diesel fuel complete.

Slightly more than one year ago, research and testing gave final approval to GLF new Green Diesel Fuel—in grades No. 1 and No. 2. Scientifically developed additives enabled the fuel to reduce operating and maintenance costs, increase engine efficiency and power, eliminate rust, corrosion, smoke, soot, and cold weather freeze-ups.

Is the new fuel really this good?

Ask your neighbor. Chances are, he's using it.

Here's proof: During the last four months, new Green Diesel Fuel sales have gone up an unbelievable 42.2 percent over the same period one year ago. Operating conditions during the period of increased usage were normal and would not greatly influence sales volume. There have been no expensive, hard sell advertising or sales campaigns to influence this statistic. It's a fact. More farmers are switching to the improved fuel because it does farm work.

Some typical comments we have been hearing lately are:

"Outperforms all previous fuels we have tried . . . it's clean . . . tractor engines don't load-up with fuel at slow speeds now."—*Lewis W. Fogg, Salem, N. J.*

"More power than before and a great reduction in smoke."—*Esther Goodale and Sons, Cortland, N. Y.*

"I've noticed a reduction in fuel usage."—*Alton Flint, trucker from Campbell, N. Y.*

If you need a diesel fuel to do farm work, write to *Demonstration, Petroleum Products and Services, Terrace Hill, Ithaca, N. Y.* We'll send a man to show you how GLF new Green Diesel Fuel can give your tractor more power, higher operating efficiency, and longer life. Write today.

new Super Premium "Our Best" Motor Oil fights sludge and prevents harmful additive ash buildup.

• This exclusive new multi-grade motor oil for passenger cars and light trucks fights sludge with an extra-strength combination of additives. And it protects your engine completely against knock-producing additive ash deposits —a problem other premium oils actually create.

Many motorists will get up to 8,000 miles between oil changes.

See how "Our Best" motor oil can add miles of life to your car or light truck. Order from your GLF Petroleum Service Plant or Service Agency. *Cooperative GLF Exchange, Inc., Ithaca, N. Y.*



GLF Quality

PETROLEUM PRODUCTS & SERVICES

FARM DOLLAR GUIDE

SUMMER SLUMP in production of dairy cattle is hard to reverse if you let cows drop in production before using supplementary feeding. It's all too common to over-estimate pasture and underfeed cows. Don't wait for production drop before coming in with greenchop, stored feeding, more grain or hay. Also remember that high-producing cows will drink as much as 50 gallons a day in hot weather.

THE CONTROVERSIAL WHEAT-COTTON BILL IS LAW! Cotton will now have three subsidies - price support to growers, an export subsidy, and a subsidy to American cotton mills to help meet foreign competition.

Here are the main provisions of the wheat program: Wheat growers who have signed to participate in the program must stay within 1964 acreage allotment, but may divert more acres, up to 20% of the allotment or 15 acres, whichever is larger.

Cooperating grower will then be eligible for supports at a national average of $1.30 per bushel on his entire production. He will also get an acreage diversion payment (averaging $6.30 per acre) consisting of 20% of the county's wheat loan rate multiplied by the normal yield of the farm on the 11.11% minimum diversion and on additional acres diverted. Also, he will get domestic wheat marketing certificates valued at 70 cents per bushel covering 45% of normal production, and export marketing certificates valued at 25 cents per bushel covering 45% of his production.

The marketing certificate provision will become effective on July 1. The new law will cover two years, then growers will vote to continue or discontinue.

Incidentally, feed grain program signup is bigger than last year, indicating smaller '64 grain crop.

SOME INSECTICIDES IN TROUBLE because of long resistance. Latest in controversy is the alleged killing of fish in the Mississippi River, blamed by authorities on endrin. Plenty of evidence refuting this available, but it does indicate increasing problems in use of materials like endrin, dieldrin, and aldrin.

In a California test, EGG PRODUCTION DROPPED DRASTICALLY when caged birds ate from troughs containing feed at a depth of 7/8" compared to 1½".

ALFALFA WEEVILS are moving steadily northward, and already do great damage in Northeast. Can harvest early and spray stubble. Check county agent for your state's recommendations.

PLANS FOR OAT SILAGE should include being all set to go fast when crop reaches late milk or early dough stage. Research and experience show oat silage can be good feed, but it has to be ensiled before it's too mature.

MASTITIS CONTROL depends heavily on a critical factor - cubic feet per minute movement of air at the end of the vacuum line per milking unit. So reports Professor W.A. (Dick) Dodge of the University of Vermont. Five cfm per minute is excellent; four acceptable; readings below that are labelled "direct road to mastitis." Three options for low cfm correction: fewer milker units, add a second vacuum pump, or get a larger vacuum pump.

FREEZING WEATHER HAS CUT PEACH CROP in Georgia, Alabama, and the Carolinas by an estimated 75% to 80%.

BLOAT PROBLEM hasn't been licked. Fill cows up with hay before turning them on legume pasture. Greenchopping legumes reduces bloat potential, so does supplementary pasture with hay. Anti-foaming materials like soybean oil or animal fats will help when mixed with concentrates or sprinkled on greenchop.



job's done **flies die all season**



Snip Fly Bands make season-long fly control a 20-minute job in the average barn. Work is over once they're tacked in place.

This amazing new fly band goes up in seconds, controls resistant and non-resistant house flies all season. NO mixing—NO spraying—NO mess. Snip® Fly Bands make fly control a one-time job...season-long effectiveness means real economy.

Look for this colorful display carton of 25 Snip Fly Bands at your local dealer. The carton is a handy carrying case when you buy Snip in quantity...or the bands may be purchased singly.

Snip Fly Bands

- Individually wrapped
- Made of sturdy plastic fabric
- Impregnated with Dimetilan® insecticide
- Control resistant flies
- 1 band "treats" 100 square feet of ceiling area
- Flies are attracted by bright red color and special chemical attractants
- Flies feed briefly...drop off dead
- For use in most kinds of farm buildings: dairy barns, calf barns, stables, livestock loafing sheds, pig parlors, poultry houses, egg rooms, animal shelters

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, N.Y.



Geigy

Fly control's a snap with Snip!

Which of the dozens of available fly killers are "best"? That depends on how you house, feed and milk your herd.

How to get <u>complete</u>, <u>low-cost</u> <u>fly control</u> tailored to your barn, pasture and milking setup

No *one* fly killer can give you complete fly control. But you can get complete control with just these two: Vapona® Insecticide and new Ciodrin® Insecticide.

Each one is highly effective against all 4 major kinds of flies. *Neither* one will create residue problems in milk.

Here's how — and where — to use Vapona and Ciodrin in your own, tailor-made fly control program.

WHEN it's hot and when pasture grasses are off, milk checks shrink. Yet that's just when stinging, annoying flies attack—and cut milk production even further.

> *To make a profit during fly time, every dairyman must: 1. Control <u>several</u> kinds of flies. 2. Stop them in the barn <u>and</u> on pasture. 3. Do the job <u>without</u> leaving residues in milk. 4. Practice good sanitation.*

But aside from these basic requirements, *fly control problems differ on every farm!* Big herds present application problems different from small ones. Flies in milking parlors can't be controlled in the same way as flies in barns. And not all fly species are present everywhere.

By knowing the special benefits of Vapona sprays, fogs, baits and the new Vapona Insecticide Resin Strips—also Ciodrin sprays and the new dairy back rubber formulations of Ciodrin—you can tailor-make your *own* most effective and economical program.

IMPORTANT: When used according to directions, neither Vapona nor Ciodrin will create residue problems in milk.

Vapona volatilizes —actually seeks out flies

Capsule Summary: 1. Vapona can be applied to lactating cows. 2. Gives fast knockdown and kill of face fly, horn fly, house fly, stable fly—including resistant strains. Mosquitoes, too. 3. Volatilizes—seeks out flies behind beams, etc. 4. Available as sprays, liquid and dry baits, resin strips.

Use Vapona Insecticide in your barn, milking parlor and milkroom.

This remarkable insecticide actually spreads far from where you apply it, fills your barn to get behind beams, rafters. Result: it kills flies other insecticides never even reach!

You can spray Vapona directly on cows. Or, use it in foggers for barn and milking parlor applications. Liquid or dry baits are another method of barn application. (See photos)

Low cost

One gallon of 1 percent Vapona solution per cow will give a full season of fly control. This equals about 1 to 2 cents per cow or application —extremely low-cost control.

Eliminates wall sprays

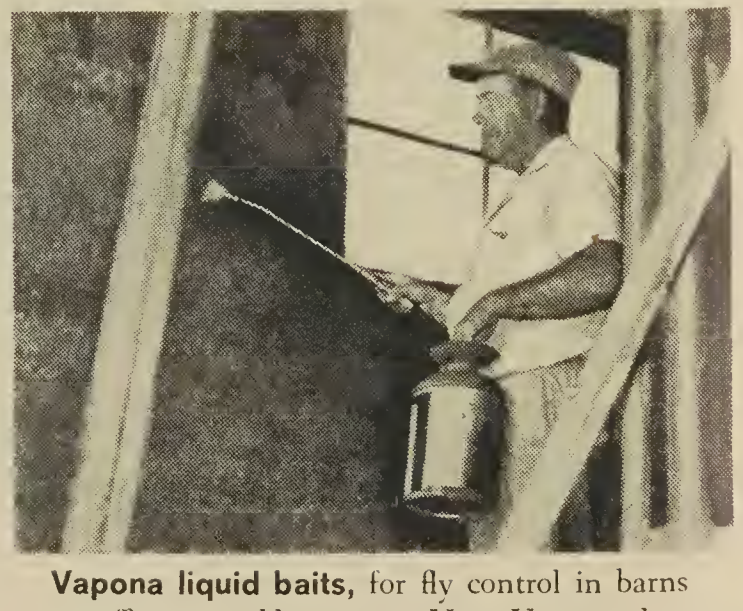
Where Vapona is fogged or applied to cows regularly, there is often no need for wall sprays.



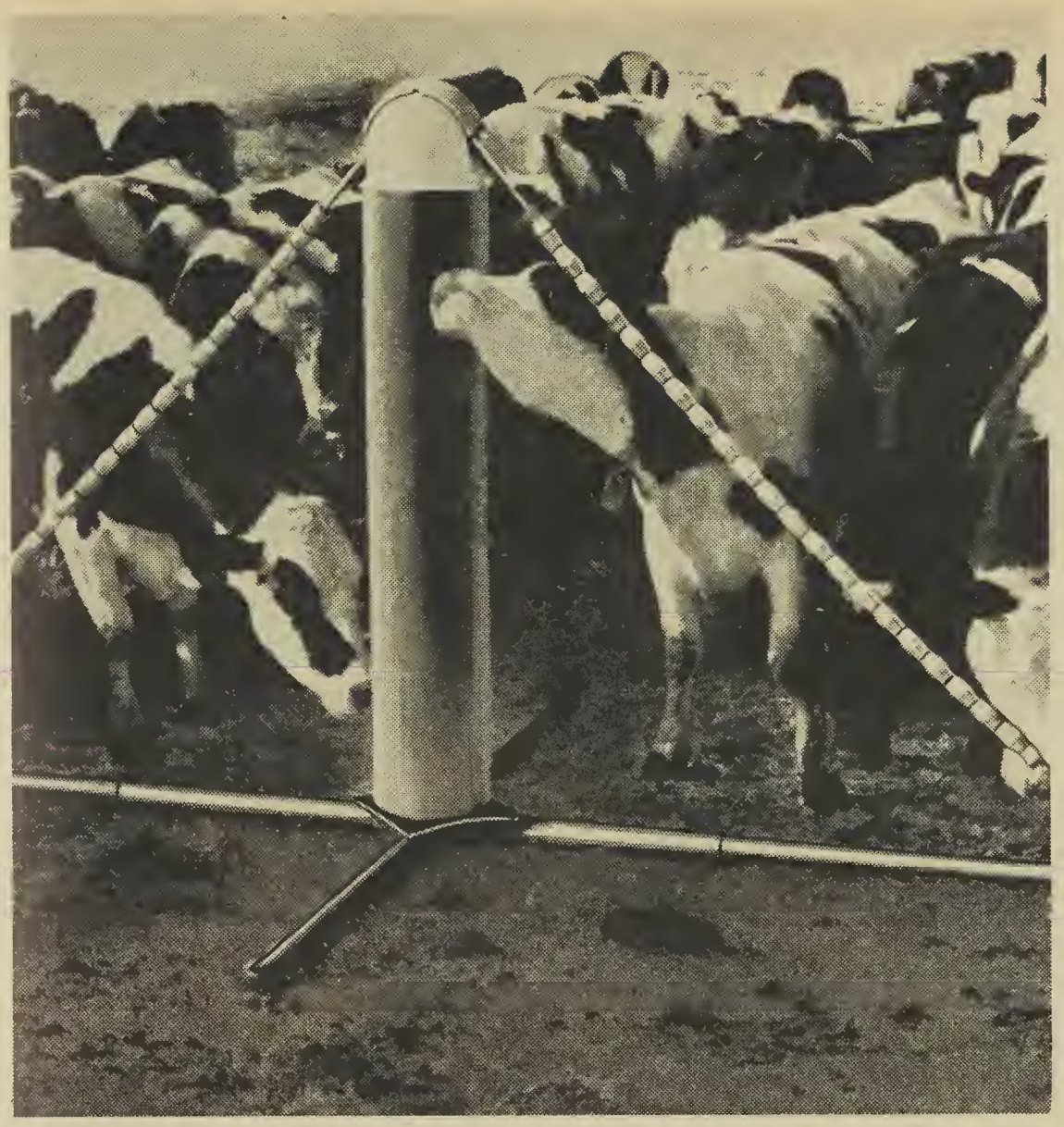
Automatic sprayer is labor-saving way to apply Vapona or Ciodrin or combination sprays. Gets legs, undersides for stable fly control. Write Shell for source of build-it-yourself plans.



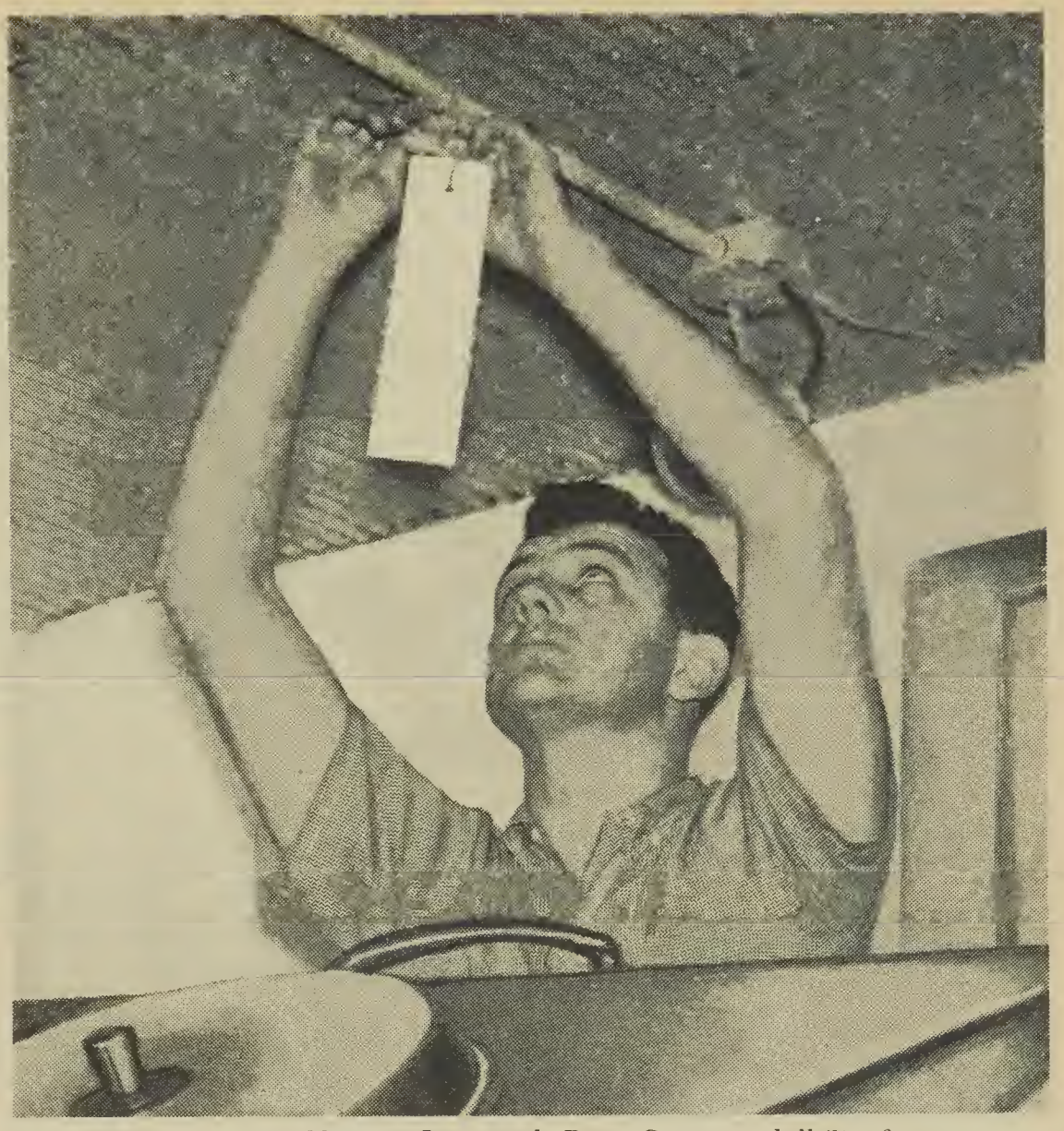
Vapona reaches flies ordinary insecticides miss. Reason: Vapona *volatilizes*, spreads far from where you fog or spray it. Above: one of several types of foggers suitable for application.



Vapona liquid baits, for fly control in barns are effective and low in cost. Here, Vapona-plus-sugar bait is strip-sprayed on wall of barn. This bait will keep killing flies for 7 to 14 days.



New! Back rubbers and face rubbers for lactating dairy cows—thanks to new Ciodrin Insecticide. Above: one of several kinds of suitable back rubbers. Ciodrin in back rubbers protects your cows on pasture, lets *them* do the work of application.



Amazing new Vapona Insecticide Resin Strips can kill flies from across a milkroom. Hang one strip (takes seconds) per 1000 cubic feet, get continuous control for weeks. Strips control flies without creating residue problems in milk. Use also in feed rooms.

Reason: the Vapona spreads as you spray your cows, knocks down and kills flies throughout the barn. If infestations are heavy, a Vapona bait will give supplementary control.

Amazing new resin strips

Vapona Insecticide Resin Strips are 20% Vapona Insecticide incorporated in resin. They "meter out" the Vapona in effective doses, give *continuous* fly control. Strips take seconds to "apply" yet keep working for many weeks. One 10″ strip controls flies throughout 1000 cubic feet. And, most important, when properly used, Vapona Strips won't create residue problems in milk. For best results, use in confined areas where air movement is at a minimum.

Vapona Strips are ideally suited for fly control in *milkrooms* and milk parlors where spray should not be used and where residual insecticides are prohibited. Use in other confined areas such as calf feed rooms.

NOTE: Hang strips in enclosed, back-porch entryway. And, you can use them to control small flying insects in *any* room in your home.

Ciodrin gives day-long fly control on pasture

Capsule summary: 1. Ciodrin can be applied to lactating cows. 2. Gives day-long control of flies on pasture. 3. Kills face fly, horn fly, house fly, stable fly—including resistant strains. 4. Available in spray and back rubber formulations. 5. Can be applied with Vapona.

Ciodrin Insecticide controls flies where your cows make most of their milk: *out on pasture*. Just one Ciodrin spray each day does the job.

Pasturing cows use energy to fight flies—and they get this energy from forage and *feed*. Control flies on pasture with Ciodrin and your cows will turn more feed and forage into *milk*.

Spray Ciodrin alone—or with Vapona

Ciodrin can be sprayed in the barn directly on your cows. Note: stable flies attack legs and underside of cows. Cows must be completely covered to control this species.

To control flies inside the barn *as well as on* your cows, use a combination Ciodrin-Vapona spray. Vapona gives fast knockdown and kill all through the barn. Ciodrin goes out *on pasture with* your cows.

New: back rubbers for pasturing dairy cows

Thanks to new Ciodrin, back rubbers and face rubbers can be used to protect *lactating cows*—just as they have been protecting beef animals. Ciodrin is the *only* back rubber insecticide accepted for use on dairy cows and beef cattle.

Back rubbers or face rubbers are filled once every several weeks. And your cows do the work of application! The cost is low, the time and labor saved, great.

NOTE: Freshening heifers using a back rubber charged with Ciodrin can be put into the milking line without a feed-off period.

Where to get Vapona and Ciodrin

Vapona Insecticide sprays, baits and Resin Strips, and Ciodrin Insecticide sprays and back rubber formulations, are available under the names of many, well-known manufacturers. Be sure to look for the names "Vapona" or "Ciodrin" or "Vapona-Ciodrin" on the label, or on the list of ingredients.

Shell Chemical Company, Agricultural Chemicals Division, 110 West 51st Street, New York 20, N.Y.

Always read labels on pesticides before using.



Dry Vapona baits control flies at very low cost. When directions are followed, Vapona will not create residue problems whether sprayed, fogged, sprinkled or applied as resin strip.

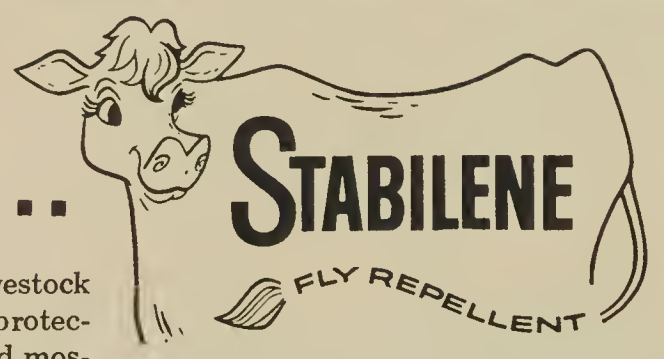


Both Vapona and Ciodrin insecticides control face fly. Apply either one as a spray. Use Ciodrin in a face rubber on pasture—or paint a Vapona-syrup bait on cow's forehead.

Shell Chemical Company SHELL



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STABILENE fly repellent in livestock sprays provides *"before-bite"* protection against biting flies, gnats and mosquitoes. Many insecticides in livestock sprays provide *"after-bite"* protection against these annoying pests.

If the spray contains *only* an insecticide, flies, gnats and mosquitoes must contact your livestock for the spray to be effective. STABILENE sets up a repellent barrier that keeps the pests away from your livestock.

The ideal protection for your animals is a *two-way* spray that includes both STABILENE and a high-quality insecticide. Almost every program, recommended by Extension Livestock Specialists for control of biting flies, gnats and mosquitoes, specifies the need for a fly repellent along with an insecticide.

STABILENE is an excellent fly repellent used in many leading livestock sprays. For information about STABILENE, write: Union Carbide Corporation, Chemicals Division, 270 Park Avenue, New York, N. Y. 10017.

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CHEMICALS DIVISION
270 PARK AVENUE, NEW YORK, N.Y. 10017

STABILENE is the new trade mark of Union Carbide Corporation for fly repellent.

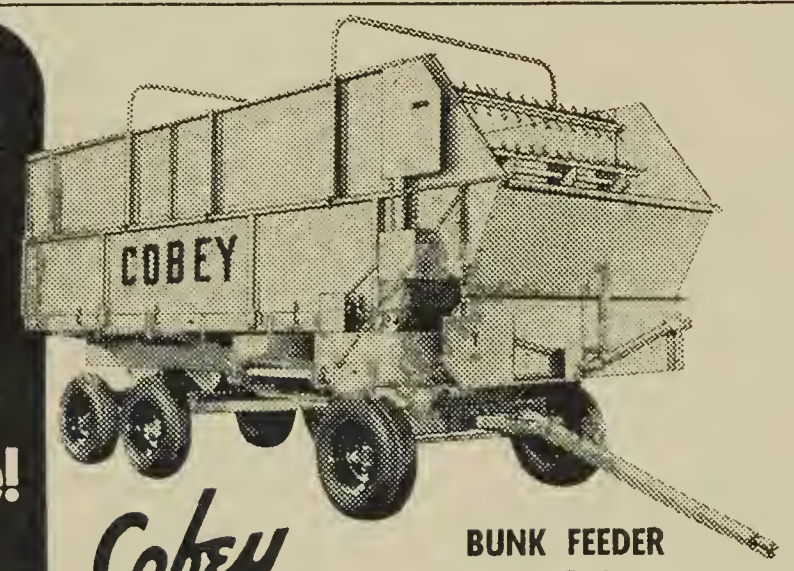
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Ted O'Hara, Auburn, New York, feeds a mixture including high moisture corn stored in a silo.



SILO OR CRIB FOR EAR CORN?

by Lloyd Curtis*

SOME DAIRYMEN WITH ear corn are debating whether to store it in a silo or in a crib. A number of beef men have been storing high moisture (moist mature) ear corn and feeding from a silo; a few dairymen are already using this method successfully. Ear corn can be chopped into the silo, coarse ground, or the grain shelled and stored alone (or with the crushed cobs).

Much higher possible yields in recent years have stimulated additional interest in corn. Growers are getting these higher yields with some of the newer hybrids, planted thicker, using enough fertilizer, chemicals for grass and weed control, and with improved tillage methods. These advances have expanded the area where corn can profitably be grown.

With high yields, more dairymen have ear corn to harvest after making enough silage.

Three Farms

Three New York dairymen cooperated by keeping records of machine hours and labor to harvest and store their ear corn in the fall of 1963. A brief description of each follows:

Farm A: 87 acres of corn were harvested using the grain combine with a corn head. The shelled grain, dry enough for cribbing, was blown into the silo (no cobs). It is a sealed storage grain unit with bottom auger for unloading.

Last winter (1963-64) the owner fed this material from the self-unloading silo to about 80 Holsteins with a herd average of 12,000 lbs. of milk; the corn (26% moisture) was augered into a roller mill. A bin beside the silo contains a mixture (20% protein) of crushed oats and 32% protein supplement. The dry concentrate mixture is conveyed by auger into the roller mill with the moist corn to give a mix of equal parts or whatever is desired in the feed cart.

The higher producers get 30 lbs. per day of this mixture in two manger feedings. All cows get one feeding of 25 to 30 lbs. of haylage and have free access to good legume-grass hay in racks in the exercise lot. This is the second year for high moisture corn in the ration; cows are eating it well and are producing satisfactorily.

Farm B: 85 acres of corn were harvested by a grain combine adapted with a corn head. Two-thirds of the crushed cobs went into the silo with the grain. The silo is a 20' by 50' sealed storage unit equipped with regular unloader for haylage or corn silage. This was corn suitable for cribbing (22.7% moisture).

It was fed starting in March to 250 Holsteins in a pen stable (13,800 lb. herd average). Grain and cob were augered into a roller mill, through a Way-O-Matic and into a self-unloading wagon. It was fed in conjunction with corn silage 50 lbs. per day or haylage 25 lbs. in "bunk" feeders in the pens. Alfalfa-grass hay at 10 lbs. per day is included in the ration.

When corn silage is fed rather than haylage, a concentrate supplement is fed in the milking parlor. At this farm, cribbed corn has been fed out during the winter months so that the completely mechanized and labor-saving job of feeding from the silo will take place during the spring's work and hay making.

Farm C: 32 acres of corn, immature when frost came, was custom picked. An old-style ensilage cutter chopped the ears into the regular sealed storage unit of the type on Farm B. High quality second cutting alfalfa-grass hay was fed into the ensilage cutter with the immature ears to give a 6 to 1 mix of corn to hay. The contents of the silo had 41.6% moisture.

The material is being fed to a herd of 64 Holsteins (average

(Continued on next page)

*Crop Monogement Research, GLF Soil Building Division

COST TO HARVEST AND STORE EAR CORN OR FIELD MOISTURE GRAIN IN THE SILO

Three New York Forms — 1963

Form	Structure	Corn	% Moisture	Dry Shelled Groin Equivolent 15% Moisture Lbs.	Bu.	Silo Cost Per Bu.	Cost/Bu Horvest + Store
A	Seoled Storoge*	Field Moisture	26.0%	303,800	5,425	9¢	20.9¢
B	Seoled Storoge**	Field Moisture Corn & Cob	22.7%	310,244	5,540	12¢	39.0¢
C	Seoled Storoge**	Chopped Eors With Dry Hoy	41.6%	112,293	2,005	33¢	52.8¢

*Smoller unit for groin.
**Regulor unit for hoyloge or corn siloge.

10,000 lbs. of milk) housed in a stanchion barn and milked in a parlor. The daily rate of feeding has been increased three different times.

In February each cow in the herd was being fed 20 lbs. per day of haylage, 18 lbs. of regular corn silage and 8 to 10 lbs. of good first cutting hay. In addition, the ear corn-hay mixture is fed on the silage or haylage, the amount depending on production, the higher being 20 lbs. per cow per day. A 15% protein concentrate is fed in the milking parlor according to production. At the rates offered, the cows have consumed the ear corn-hay mixture well and production has been satisfactory.

Calculating Costs

Following harvest each operator helped in establishing depreciation rates, annual cost of repairs, the percentage of the annual cost for the machine or the silo to be charged to ear corn or high moisture grain. Interest, depreciation and all costs were figured as nearly as possible by methods used on farm cost accounts by the College of Agriculture at Cornell.

In 1962 sixteen farm cost account records on 58,000 bushels of dry shelled grain had a cost for harvesting and storing of 39¢ per bushel. Their yield was 70 bushels per acre and their structure cost averaged 4¢ per bushel for the crib or conventional systems which were in use. Acre yields on the three farms studied were slightly lower.

Results

1. Costs per bushel to harvest and store on these three farms were 21¢, 39¢, and 53¢. These figures are per bushel of dry shelled grain equivalent (15% moisture).

2. Compared to the average for all farm cost accounts in 1962 (16 farms), one of the figures in (1) is below, one equals and one is above.

3. On these three farms, total costs in harvesting and storing for the silo compare favorably with the crib or conventional method used.

4. The annual structure cost, included in total costs above, for the use of the sealed storage was 9¢, 12¢ and 33¢ respectively. These are well above the average for cribs.

5. Feeding from the silo is simple, direct and can be completely mechanized. Any preparation such as rolling shelled field moisture grain can be done right in the stable on the farm.

6. With ear corn in the crib, the labor, trucking, grinding and mixing (truckload lots in bulk) will cost 25¢ to 28¢ per bushel (dry, shelled basis) to get the corn to the bin for feeding.

Discussion

These three dairymen are well satisfied with their sealed storage units for handling corn. A fourth farm stored field moisture coarse ground corn and cob in a wooden stave silo; this material has also been successfully fed. Results reflect the experience of other farmers that the conventional silo may be used, although it will require somewhat more careful management. The diameter must be such that the feed-off rate will keep material in good condition.

For example, a beef feeder, H. J. Blood, Batavia, New York, has used a 14' by 40' concrete stave silo for this purpose for five years. Field moisture corn and cob is coarse ground into it. On full feed 110 steers eat 25 lbs. per head per day plus 4 lbs. hay, 12 lbs. corn silage and supplement as needed. This rate of feeding removes well over one ton of ear corn per day (3 inches or more), to keep the material in good condition even in warmer weather.

Mr. Blood's experience confirms results of another project of storing ear corn in small experimental silos at Ithaca. In them matured field moisture corn (about 30%) was compared with immature high moisture material that had been frosted (45% moisture). Conclusions of Agricultural College and G.L.F. specialists agree with Mr. Blood's.

Immature Corn

While the silo may offer a means of helping to save immature, high moisture ear corn, it results too often in a less palatable feed. Great care must be taken in feeding it heavily to high producing dairy cows. A survey of five large dairy herds in eastern New York, feeding such material during the winter of 1962-63, clearly indicates that lowered intake and production can occur.

On many farms there will be no suitable silo space available. Consider concentrating the ear corn in regular corn silage. A two-row machine is now available which chops one row in the normal manner and snaps only the ears from the second row for chopping. Another approach being used is to cut corn at the height at which the chopper is transported between fields. One farmer found that reversing the chopper axle substantially raised the level of cut.

The earlier harvest of high moisture corn reduces field losses from lodging; storage losses to rodents is negligible. Feeding from the silo is lower in cost and can be completely mechanized.

Cooperating dairymen were Noblehurst Farms, Kenneth and Jack Noble, and Fred Clapper, Linwood, New York; Ward O'Hara and Sons, Auburn, New York; and Lynn Rober and Sons, Morrisville, New York. Thanks to these men and to Mr. Arnold Cope of East Springfield who has helped throughout the project.

Professors Stanley W. Warren and C. Delmar Kearl of the Agricultural Economics Department, College of Agriculture, Ithaca, offered many helpful suggestions in organizing this report and in figuring costs.

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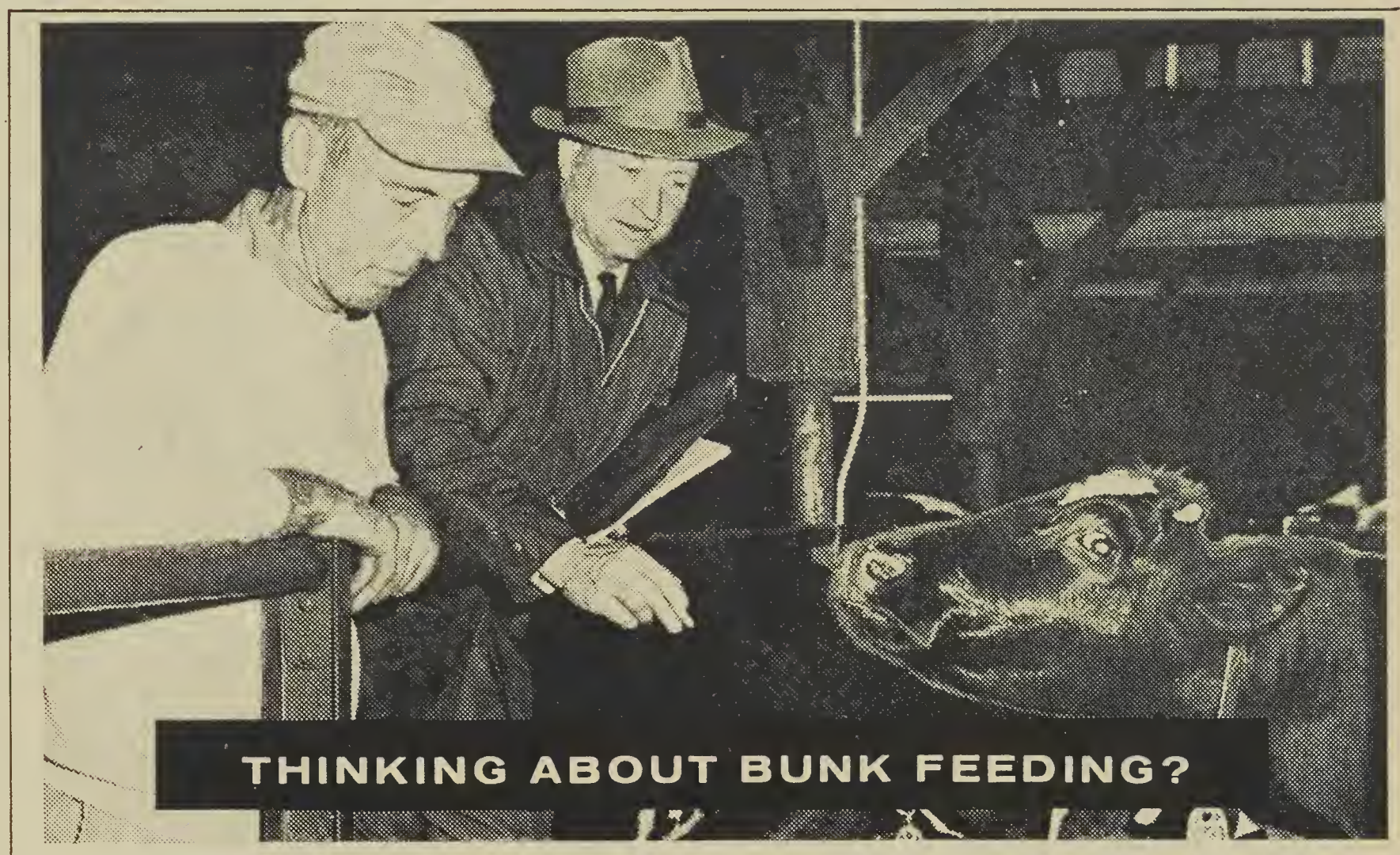
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Mike Dapolito, as production supervisor, "knows his berries."



THEY HARVEST 150,000 QUARTS OF STRAWBERRIES

The three Dapolito brothers, Mike, John and Joe, who farm as Dapolito Brothers, Inc. at Clyde, New York, grow truck crops on more than 400 acres. Their farming acreage breaks down about like this: 350 acres of snap beans, 25 of strawberries, 20 of sweet corn, and 15 of raspberries.

The highlight of their farming operation, though, is their 25-acre strawberry field. Berries require a lot of work, and more care in planting, cultivating, harvesting and marketing than many other crops. However, with Mike taking care of the production, "ramrodding" the pickers and maintaining quality control, John skillfully handling the marketing, and Joe acting as overseer of the accounting, their production is capably handled.

Mostly Sparkle

About 99 percent of their strawberries are of the Sparkle variety, with Early Dawn accounting for the remainder. "We have had good results with Sparkle, an average yield of about 5,000 to 6,000 quarts of high quality berries to an acre," Mike says.

They plant 17 to 18 acres of strawberry replacements every year; the 25 acres of fruiting berries in any given year are made up of the acreage planted the year previously plus one-half of the "old" plants. That is, the best looking and most weed-free half of the acreage that has fruited one year is fruited the second year; the other half is plowed up.

A cover crop is grown on fields to be planted to strawberries, plowed down for added fertility, and then they drill in 600 pounds 10-10-10 fertilizer per acre about 10 days before planting. About the third week in July or first week in August ammonium nitrate is applied to bolster the fertilization program (60 pounds of N per acre).

The new berries are planted with a mechanical planter and Sesone herbicide applied. Eptam and 2, 4-D are also being tried experimentally, but Mike quips, "The backbone of our weed control program is that we keep a sharp hoe handy!"

After the first picking season, they take a mower and cut old berry patches back to the ground, then rototill a wide middle, cutting the berry runners back to approximately the original planted row. This gives the plants a new start for the following season.

Mike uses a rain gauge to measure accurately just how much water the berries are getting, and supplements nature with his sprinkler system, set 60 feet apart on 30-foot pipes, to make sure the patches get at least one inch of water per week. For greater performance of equipment, Mike has another use for his sprinkler system. He was a pioneer in his area in using sprinklers for frost control during threatening periods of cold weather.

"When the thermometer hits 33 degrees, we hit the start button on the pumps. We have used these sprinklers successfully to chase the chill while others in the area lost berries to frost," Mike says, "For frost control, we space the sprinklers over a 90 by 90-foot area and plug one nozzle. This gives us sufficient mist to hold down freeze damage." In 1963, the Dapolitos did have a light touch of frost damage because of the heavy late frost, despite the fact that they used about two tons of wheat straw per acre for mulch along with their sprinkler protection.

These growers also make their pesticide application perform double duty. On their strawberries they use Sevin insecticide to control spittlebugs; it also controls adult mosquitoes for "picker comfort." Mike has Donald Hatch of Hatch Flying Service, Clyde, a former World War II pilot, fly on his insecticide as well as some of his fertilizer. He makes one application of Sevin, at the equivalent rate of one pound of active ingredient per acre, just before the picking season starts, and another application in the middle of the harvest. He also uses DDT for pre-bloom plant bugs that migrate to strawberry blossoms, and captan fungicide for disease control.

The strawberry-picking season lasts about three weeks, usually from June 15 through July 4. Their crop is marketed primarily

(Continued on page 21)

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Two models. Land Driven or Power Take Off. Rubber tires. Turns hay in swath or windrows. Non-tangling pick up forks. Makes hay faster. Write for details.

MANUFACTURED BY
G. H. GRIMM CO. INC., RUTLAND, VT.

HOOF PUNCTURES...
1 of 13 known successful uses of
KOPERTOX

Protective, insoluble in water, a fungicide, astringent, and antiseptic that penetrates deeply, Kopertox has proven a leading treatment for hoof punctures in animals. Kopertox is used, too, for ringworm, foot rot, thrush, udder sores, cracking hoofs, dehorning, clearing up and healing putrid wounds, toughening and protecting dog pads, replaces medicated dusting powders, and repels insects on wounds and dehorning. FOR ALL USES, READ the label on the Kopertox pint can. Used clinically by 44 OUT OF 51 LAND GRANT AND VETERINARY COLLEGES. Send for literature.

Sold Exclusively Through Veterinarians
RAY CHEMICAL COMPANY
406 CANAL BANK, WINDSOR LOCKS, CONN.



Loosens Rusted Bolts
nuts, screws, "frozen" parts!
LIQUID WRENCH
SUPER-PENETRANT

Frees rusted parts on tractors, plows, cultivators and other farm equipment.

3 oz.
35¢

AT HARDWARE AND AUTOMOTIVE SERVICE STORES

For the very finest MILKER INFLATIONS for all milkers,

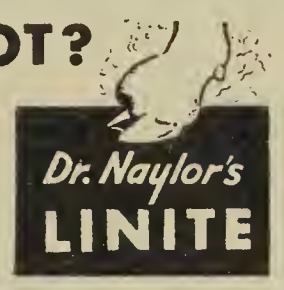
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Dairymen - ---
WRITE for FREE CATALOG
RED STAR DAIRY SUPPLY, *Sauk City, Wis.*

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CANKER — THRUSH

A powerful, penetrating antiseptic and absorbing agent for stubborn hoof infections. Easy to apply —pour it on. No bandage required. $1.25 at drug and farm stores or write.
H. W. Naylor Co., Morris 4, N.Y.



STEEL AND ALUMINUM BLDGS.
FOR ALL PURPOSES
SECTIONAL UTILITY BLDGS. & GARAGES
Easily erected • Quick delivery
Shipped Anywhere
Write for information
JOHN COOPER CO.
296 2nd St., Hackensack, N. J.
(201) HU 7-4018

SEE HAWAII WITH US

If you have been longing to visit Hawaii, the "Paradise of the Pacific," now is your chance to go the ideal way — with a congenial American Agriculturist tour party — and this year we offer you a choice of traveling there by air or by ship. Our official tour agents, the Travel Service Bureau of Needham, Massachusetts, are again making all arrangements, so those of you who have ever traveled with us know this means a really marvelous trip.

If you prefer to go to Hawaii by steamship, you will leave home on September 1 and return October 1. You will travel on the New York Central to Chicago and then on the California Zephyr to San Francisco and see some of America's loveliest scenery as you pass through the Colorado Rockies and the Feather River Canyon in the Sierras.

Our luxurious cruise ship, the SS Lurline, invites you to five enchanting days of smooth sailing and fun aboard ship each way across the Pacific. Beautifully appointed staterooms, spacious decks and lounges, wonderful meals, and every sort of entertainment imaginable help to make the cruise an experience you'll never forget.

To Hawaii by air, of course, takes less time than by ship. Those choosing to fly will leave eastern points October 10 and arrive home October 26.

After arriving in Honolulu, both tour groups will follow almost identical itineraries, the only difference being that those on the air tour will be in Hawaii for the Aloha Week celebrations, October 19-23. This time will be spent in Waikiki so our tour group can see the colorful pageants and gala Aloha Week parade.

Four Islands Visited

Whichever way you choose to travel, your visit in Hawaii will include the four best known islands — Maui, Hawaii, Kauai, and Oahu. Some of the things you will see on Maui are Haleakala, the world's largest dormant volcano, and "The Needle," a fern-covered volcanic freak rising over 2,000 feet above the valley floor, also Lahaina, former capital city of the Islands.

On the large island of Hawaii, you will visit Hilo, orchid capital of the world, and see the nurseries where these exotic blossoms are grown. You'll also see Rainbow Falls, Hawaii National Park, Akaka Falls (which are higher than Niagara), and pass through the vast Parker Ranch on the way to the quaint town of Kailua.

After Hawaii will come the "Garden Isle" of Kauai and an excursion by motor launch up the Wailua River to a lovely fern grotto, passing acres of waving sugar cane, rice paddies, and field upon field of beautiful tropical flowers.

Going back to Honolulu on Oahu, the most famous of the islands, you'll cruise through Pearl Harbor to see "Battleship Row," and have a full day circle tour of the island.

Like all American Agriculturist tours, these are "all-expense" ones with everything included in the price of the ticket — all transportation, all scheduled sightseeing, all meals and all tips.

Fill out the coupon on this page and mail it today to get the attractively illustrated itinerary with complete information about the cost of both tours. An early reservation will assure you of getting the kind of accommodations you desire, and the deposit of $200 will be refunded if you should have to cancel later.

Alaska Tour

Many have written to ask if the March earthquake would effect the American Agriculturist Alaskan Tour, July 10 - August 1, and we are happy to tell you that our plans are unchanged; we will be going to Alaska!

It is expected that more people than ever will be visiting Alaska this year because of their desire to see the results of one of this century's major earthquakes. There is even the possibility that a part of the Anchorage business section will be relocated, preserving a block-long area of the present main street to show how buildings fell into the 20 to 40-foot-deep crater, caused by the earthquake.

Our tour party is almost complete, but there is still room for a few more. So send in your reservation at once if you want to go along on this wonderful summer vacation.

Gordon Conklin, Editor
American Agriculturist
Box 367-H
Ithaca, New York

Please send me, without obligation on my part, a copy of your Hawaiian Tour folder.

Name_____

Address _____

(Please Print)

STRAWBERRIES . . .

(Continued from page 20)

through fresh market channels to such places as the resort areas in the Adirondacks, Pennsylvania, and around Lake Placid. Some crates go to Burlington, Vermont; Syracuse and Rochester; New York City; and to nearby fruit-stand markets within a 50-mile radius of Clyde.

"A radio-telephone for the field car keeps me posted on the prices, minute by minute, during harvest," says John Dapolito. They pick according to the situation of the market — and when John calls for the pickers to halt for the day it is like a Hollywood director shouting "cut" to a cameraman.

sweetest dreams in syracuse

Busy meeting sessions all day? Treat yourself to a sweet night's sleep in suburban quiet—yet only 8 minutes from downtown, right on the Thruway. Free indoor heated pool. Free parking. Free TV in all 300 air-conditioned rooms.



Reservations:
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Electronics Pkwy
Thruway Exit 37
Syracuse, N. Y

WHAT'S NEW IN SEED?
quite a few things you should know about
ASK YOUR GLF SEEDSMAN

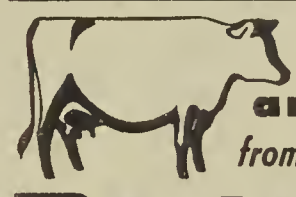


Troubled with FLIES in barn or poultry house?

Carbola
DISINFECTING WHITE PAINT

KILLS GERMS, FLIES, INSECTS
while giving clean bright finish

Carbola Disinfecting White Paint is **NOT** a lime or whitewash product. Will not flake. Goes on easily with brush or sprayer. Contains powerful insecticides that kill flies and insects on contact. Safe for animals and humans. Get Carbola at your farm supply store. Ask about Carbola's Approved Spraymen service. For literature, write **Carbola Chemical Co., Natural Bridge, N.Y.** Attention Dept. AA-46



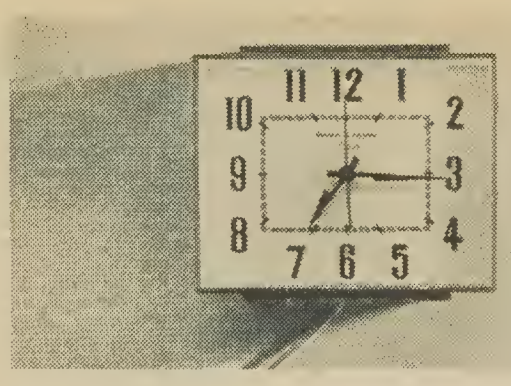
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from Herd to Bottle!
Britex SANITATION PROGRAM
BRITEX CORP. *Manufacturing Chemists*
BOSTON, MASSACHUSETTS



1964 EXPOSITIONS

NEW YORK
September 1-7
Syracuse, N.Y.
American Agriculturist's September issue is published early for TIMELY coverage and the preview of this statewide event.

EASTERN STATES
September 19-27
W. Springfield, Mass.
American Agriculturist's September ISSUE for New England will preview this Northeast event with its 500,000 attendance.



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.			
Olean	WHDL	1450 kc.			
Utica	WBVM	1550 kc.			

Northeast Radio Network

Ithaca, New York



Guernsey breeders recognized for outstanding production records at the last annual meeting of the New York State Guernsey Breeders' Co-operative, Inc.: first row, left to right: Roy Kamm, L. S. Riford, Roger Corbetta, Professor Raymond Albrectsen; second row: John Calhoun, Richard Outhouse, Floyd Somes, Stanley Baker, Dave Younger; third row: Stanley Murphy, H. Sherman Lake, Homer Titus, K. C. Sly, Leon Van Quekelberg, Herman Huntley, Willard Pengelly.

Research Center — A new research center opened at the Orange County muck area June 1, on a site just south of Durhamville, New York. Associate county agricultural agent Horace Smith believes the new research facilities, which will be available to Cornell University specialists from many departments, will help immeasurably in promoting needed research on muck crops. First item on the research agenda is onion neck rot control.

The new facility was made possible through money contributed by growers and industries serving agriculture. A prime mover was the Orange County Vegetable Improvement Association; Stanley Wiecek of Goshen is president.

Merger — Headquarters of Agway, Inc., the organization that will result on July 1 from the merger of the Cooperative G.L.F. Exchange and Eastern States Farmers' Exchange, will be in Syracuse, New York. Specifically cited in favor of this city were its location in relation to Agway members and markets, and excellent travel facilities, both surface and air.

Edmund H. Fallon will be executive vice president and general manager of the corporation; Jonathan Davis, Sterling Junction, Massachusetts, is president; and James C. Corwith, Water Mill, chairman of the board.

Agway will provide purchasing and marketing services for farmers throughout the territory now served by the G.L.F. and Eastern States: New York, New Jersey, Pennsylvania, New England, Delaware, and parts of Maryland and Ohio.

New Officers — At the 18th annual stockholders meeting of Empire Livestock Marketing Cooperative, seven new directors were elected and eight continued, including three re-elected. Newly-elected were: Russell Curtis, Cazenovia; Loudon K. Daniels, Hammond; Robert S. Drake, Woodhull; Earl A. Eaton, Pitcher; Ronald N. Goddard, Dryden; Kenneth M. Noble, Linwood; and H. Foster Shimel, LaFargeville.

Eugene P. Forrestal, Medina, Theodore P. Gibson, Canton, and Clayton G. White, Stow, were re-elected. Continuing as directors are: William E. Bensley, Springville; R. Stephen Hawley, Batavia; Lester W. Martin, Milford; Alex Rabeler, Sr., Bovina Center; and Clayton C. Taylor, Lawtons.

Farm Equipment — and Materials Handling Exhibition sponsored by the New York Farm Electrification Council and the Empire State Potato Club has been set for August 12 to 13. It will be held on the Humphrey Farm, located at New Hartford, south of Utica, N. Y. The exhibits will be handled by H. J. ("Red") Evans of Georgetown, New York.

Milk By The Ton . . .

(Continued from page 14)

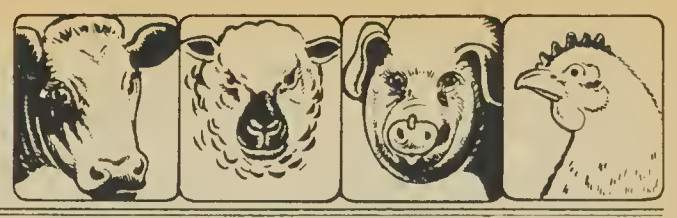
ground on the farm. It's over half corn, with some oats, soybean meal, and distillers grains. At present it is all purchased, but the possibility of growing some corn for grain is being considered.

"I'm not a heavy grain feeder," said Forrest. "The cows get grain twice a day while being milked. I am told that a cow can eat .7 of a pound of grain per minute, but ours do better than that. Silage quality is poorer than a year ago. Then the cows ate silage first, followed by hay; this year they go to the hay first.

"This has also resulted in eating more grain. A year ago I figured they ate a pound of grain for each four pounds of milk, while this year the ratio is nearer to 1 to 3. Naturally, I hope to get a higher quality of silage next summer. Frost came early in the fall of '63, and the cows just don't relish the silage. Incidentally, I don't plan to feed any cow over 30 pounds of grain a day. If roughage is high in quality, I figure that's enough."

You can't get away from the fact that net profit consists of gross income minus expenses, and while marketing milk is important, Forrest's words and actions show his belief that an individual dairyman has more control over costs than he does over prices received.

AA Livestock Mart



ANGUS

BRED COWS, choice, growthy bulls. Herd Sire a 1960# bull. Member 500 Club. Clayton Taylor, Lawtons, N.Y.

A-I TECHNICIANS

ARTIFICIAL BREEDING—Technicians. Are you interested in a position with the fastest growing A.I. Organization in the U.S.? Several choice locations are still available. Write to—Curtiss Breeding Service, Inc., Danny Weaver, District Manager, Little York, N. Y.

BABY CHICKS

BIG WHITE LEGHORNS, Brown Leghorns, Minorcas, Anconas, Rocks, Reds, Orpingtons, Brahmas, Wyandottes. 35 Breeds. Low as $8.95 —100. Ducklings, turkeys, started chicks. Free catalog. Mt. Healthy Hatcheries, Mt. Healthy, Ohio.

MARSHALL KIMBERCHICKS. Today's Kimberchicks offer more for your chick dollar than ever before — at a time when you need every advantage. To earn extra profits in 1964 order Kimberchicks now by calling Marshall Brothers Hatchery, Ithaca, New York. AR 2-8616.

ROCKS, REDS, CORNISH $3.89—100. Large White Rocks $5.45. Over 50 other breeds—Leghorns, Heavies and Crosses $1.45 to $5.45. Pullets $9.99. Before you buy, compare our prices. We guarantee to save you money. Customers choice of breeds shown in terrific big free catalog. Shipments from hatchery your section. Atlas Chicks, Home Office, 2651 Chouteau, St. Louis 3, Mo.

KING LAYERS LEGHORN PULLETS $19.95. Large type meat chicks $5.95. Diamond Chicks, Newfield, New Jersey.

BABY CHICK BARGAINS—Also Ducklings, Goslings & Turkey Poults. Free Catalog. Surplus Chick Co., Milesburg 4, Pa.

EXTRA HEAVY BREEDS—Vantress, White Mountain, Silver Black Cross, straight run, $10.00—100 prepaid. Broad Breasted Bronze, Broad White Turkey Poults 15—$12.00; 100—$70.00 prepaid. Circular. Strickler Farms, Sheridan 7, Pa.

"HEAVIES" Reds, Rocks, Rockcrosses $3.95 —100. "Jumbo" White Rocks $5.49. COD. Heavy Breeds Straight hatch $7.90; Pullets $10.49. "Deluxe" Barred Rocks. White Rocks, Hampshires, Production Reds straight hatch $9.70; Pullets $16.70. "Famous" White Leghorn Pullets $17.50. "Champion" Pedigreed White Leghorn Pullets $21.70. Redrock Sexlinks, Golden Sexlinks, Silver Cross Pullets $24.70; Straight hatch $13.95. Black Giants, White Giants, Buff Rocks, Silverlaced Wyandottes, Giant Brahams, White Wyandottes, Australorps, Black Minorcas, Anconas, Brown Leghorns straight hatch $14.95; Pullets $26.95. Pekin Ducklings 12—$4.75. Broadbreasted White, Bronze Turkeys 15—$12. Beltsville White Turkeys 15—$10. fob nearest hatchery. Live guarantee. Ruby Chicks, Dept. AGR, Virginia Beach, Virginia.

MEADOW VIEW CHICKS — Rapp Linecross Leghorns, Harco Reds, Harco Sex-Links, Lawton Buffs, Peterson Cornish Cross. Henry M. Fryer, Greenwich, N. Y.

CHAROLAIS BEEF CATTLE

CHAROLAIS CATTLE—Foundation breeding stock. 15/16 and purebred bulls and heifers available for spring delivery. Karimor Farms, Hawthorn, Pennsylvania. Phone: EN 5-3251.

PUREBRED YOUNG and matured bulls, open and bred heifers, outstanding quality. Inquire —Rivercrest Farms, Columbia, N.J. 201-496-3412.

CHAROLAIS—200 HEAD registered and recorded bulls, cows, heifers for sale. Reasonably priced. No Saturday sales. Flying Horseshoe Ranch, Morris, Pennsylvania.

DAIRY CATTLE

WISCONSIN HOLSTEIN or Swiss dairy calves. Shipped on approval. Also angus-cross. Write for prices. Otto Vanderburg, North Prairie, Wisconsin.

COWS FOR SALE—T.B. and Bloodtested. Holsteins in truckloads. E. C. Talbots, Leonardsville, N. Y.

WISCONSIN DAIRY COWS — new arrivals each week. Good deal for every dairyman. Free delivery—one cow or truckload. If you are interested in adding good cows and improving your dairy herd, you will be calling the right man. I am interested in building up a good reputation with the dairy farmers of your community. Reuben Greenberg, Inc., Columbus, New Jersey, 3 miles south, exit 7 New Jersey Turnpike. Out of State use area code 609. Phone 298-1021 or 298-1664.

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

DOGS

BORDER COLLIE PUPS—Over twenty-five years breeding and training the best. Carlton Eberstein & Son, Perry, N.Y.

COLLIE PUPPIES—championship breeding, Beautiful, intelligent, $30.00-$35.00. Plummer McCullough, Mercer, Pa.

AKC REGISTERED German Shepherds, best of blood lines, friendly with children and excellent guard dogs. River Road Dog Kennel, Route #3, Lowville, N.Y. Richard E. Young, Phone 890-R or 752.

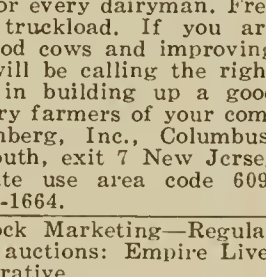
SMOOTH FOX TERRIERS—various ages. For details George Milem, Glenmark Rd., North Rose, New York.

BEST BORDER COLLIES — Imported stock. Pups — $15. - $25. - $40. Dunsmore Farm, Swanton, Vt.

Heal TEATS! Soften UDDERS!

You will like this modern, more effective medication for Sore Teats, Tender Udders. More soothing, more softening, more penetrating to relieve soreness . . . reduce congestion. *$1 at drug and farm stores, or write*

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MAINE POLLED HEREFORD SALE—1 P.M. June 17, Orono. 25 Females — 5 Bulls. Norman H. Gray, Chairman. Fryeburg, Maine.

A THREE IN ONE COMBINATION of four clean registered hereford cows with calves beside them and bred back. Also a clean registered ton bull with a double bred Pawnee Druid bloodline. Phone Waverly, New York 565-4970.

REGISTERED POLLED HEREFORDS—Cows, bulls and heifers. Top bloodlines and conformation. Robert J. Generaux, RD#1, Canandaigua, N.Y. Phone 315-596-3022.

FOUR POLLED HEREFORD Registered Bulls. Pawnee David Bloodlines. Crest View Farms, Sam Oswald, R.D. #3, Penn Yan, New York.

REGISTERED POLLED HEREFORD yearling bulls. Clean pedigreed; performance records available. A. B. Price, Clarence, New York.

REGISTERED POLLED HEREFORD bulls and heifers for sale. Top breeding of CMR and Pawnee Druid. 4-H heifers. Hilltop Farms, Canastota, N.Y. Phone 697-2294.

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WILD TURKEY EGGS—twelve $8.00. Month old poults $3.50 each. Ringneck chicks 35¢. Seven weeks $1.00 each. Pearl Guineas. Sunny Acres, Seelyville, Pa.

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STAINLESS STEEL Milking Pails, Strainers, Filter Discs, Hoof-shears, Milking Machines etc. Catalog upon request. Hoegger Supply Co., Milford, Pa.

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RINGNECK PHEASANTS make beautiful Xmas gifts. Raise your own. Eggs, Chicks, Poults. Non-flyers available starting May 1st. Request price list. Donatella's Pheasant Land, Wilmot Flat, N. H.

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THE 700 lb. BARRIER BROKEN IN NYABC MEMBERS' HERDS!

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Every one of these record-setting herds features NYABC breeding!

We Salute:

	No. Cows	M	%	F
Colton Brothers, Dalton	33	20,247	3.7	750
Merton Plaisted, Hammondsport	21	18,393	4.0	740
Gerald Stoeckel, Bloomville	37	19,650	3.7	722
Howard Saxton, Locke	44	19,296	3.7	713


Howard & Ronald Colto


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Gerald Stoeckel


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All are using NYABC service exclusively on their milking herds.

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SOME EXTRA CHOICE Jersey Calves and Heifers from long established Registered Jersey Herd. High Production, Health and Classification Records. Shown by appointment. Box 514-AN American Agriculturist, Ithaca, New York.

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GENUINE HARCO Sex-link crosses; Kimber White Leghorns. February, March hatched. Superior range grown quality. Satisfaction guaranteed. · Quantities delivered. Esperance 28J4. Lovell Gordon, Fultonville, New York.

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TWENTY-FIRST ANNUAL New York State Stud Ram and Ewe Show and Sale Saturday, June 27, 1964. Judging Pavilion, Cornell University, Ithaca, New York. Show 9 o'clock; Sale 1 o'clock, Lamb Barbecue Dinner at 12 noon. 4-H and FFA Ewe Lamb Door Prize. For catalogue write Fred H. Zautner, RD #2, Brewerton, N.Y. or Warren Brannon, Cornell University, Ithaca, New York.

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A good selection of service age bulls of excellent bloodlines. Including sons of the top bulls in the country. Priced (starting at $400) to fit your particular program.

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REGISTERED QUARTER HORSES, mares, colts and broke horses. Any number of grade horses for any occasion. Leslie Bowerman, 9065 Chestnut Ridge, Middleport, N.Y. Phone RE 5-7127.

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HERD OF BROOD MARES, ponies, gentle, broken. Bred to Palomino-colored stallion. Donald Olin, Harpursville, N.Y.

LIVESTOCK AUCTIONS

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

TURKEYS

TURKEY POULTS, 30 for $14.95, 100—$44.95 postpaid. Hatching Rose-A-Linda. Low as Goslings, 97¢; ducklings, 24¢; Guineas, 28¢. Cooper Hatchery, Oakwood 44, Ohio.

SHORTHORNS

PUT PROFIT IN YOUR POCKET — Put Shorthorn beef cattle to work at your farm. Turn grass to beef, rapidly and efficiently. Thrive in toughest winter conditions. Free performance facts for the asking—Association Secretary, Dale R. Buck, Route 2, Waterloo, N.Y.

RABBITS

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NEW ZEALAND WHITE pedigreed meat producing rabbits. Bardy's Rabbitry, East Thompson, Conn.

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VETERINARY SUPPLIES at sensible prices. Complete line. Quick delivery. Get price list from American Research Farms, Inc., Dept. ET, Lenexa, Kansas.

NEW! NOW TREAT Mastitis for less than 21¢ with new Uni-Power Infusion! Each dose contains: 100,000 units procaine penicillin, 100 mg. dihydrostreptomycin, 100 mg. neomycin, 750 mg. sulfathiazole, 750 mg. sulfamerazine, 5 mg. cobalt. Infuse directly into the infected quarter by withdrawing 10cc (1 dose) into a syringe with a needle, then replace needle with an infusion tube. Also ideal when drying off a cow—infuse 10cc of Uni-Power into each quarter—allow to remain until the cow freshens. "An ounce of prevention is worth pounds of milk." Recommended by leading veterinarians and dairy experts. Per 100cc bottle (10 doses) $2.35. Six bottles $2.25 each. Order 12 for $25.00 and receive free syringe, needle and infusion tube. At your Anchor of New England dealers or order direct from Anchor Serum Company of New England, Dept. A-4, Topsfield, Mass. Write for free veterinary supply catalogue and health guide. Please note: As always. milk should be withheld from human consumption 72 hours after the last treatment.

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July Issue.....Closes June 1 **August Issue**.....Closes July 1 **September Issue**.....Closes July 27

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BEST IN FARMING in Central New York. 320 acres, 214 tillable, riverbottom land, 150 ties, 2 houses, excellent buildings, airstrip. $60,000.00. 385 acres, all level, new barn, good house, 3 ponds, 1 mile from town. $50,000.00. 126 acres, 38 ties, good house and barn, operating farm. $11,200.00. Foster - Abraham, Realtors, Norwich, N.Y. 607-334-3555 — 607-334-4521.

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LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters — extra low prices, Box S-64, Unadilla Silo Co., Unadilla, N.Y.

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SPECIAL TRIAL OFFER. 8 enlarged prints from roll 40¢; 12—50¢. 8 Kodacolor prints from roll $1.50; 12—$2.00. Young Photo Service, 62A, Schenectady 1, New York.

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DAYLILIES — Blooming size—mixed colors. Hybrid—Seedlings. Fine Varieties—postpaid 30—$3.00. A. D. Lester, Quincy, Florida.

PRINTING

RUBBER STAMPS—Labels, Printing, Salesbooks, Signature Stamps, Real Estate Signs, Mailbox Nameplates. Catalog. Champlain Industries, Hinesburg, Vermont.

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400,000,000 Acres Government Land available in 25 States. Some low as $1.00 Acre. 1964 Report. Send $1.00 National Land, 422 AG6 Washington Building, Washington, D. C.

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GOVERNMENT LAND NOW AVAILABLE in 25 States. 450,000,000 acres low as $1.00 acre. Exclusive copyrighted report! Send $1.00 to U.S. Land Disposal, Box 18177-BS, Indianapolis 18, Indiana.

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MAKE $280.00 getting just 10 growers to try Campbell's Gro-Green fertilizer supplement. These ten demonstrators will obtain ten more. Free kit. No delivery, no investment. Sample. Campbell Company, Rochelle 66, Illinois.

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BLACK WALNUTS, Pecans, Brazils, English Walnuts, Cashews, Almonds, Sassafras, Pepper, Cinnamon $1.25 lb. Dried Mushrooms $3.00 lb. Peerless, 538AA Centralpark, Chicago 60624.

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SILOS, SILO UNLOADERS—barn cleaners. Nold Farm Supply, Rome, N. Y.

NEW 20 x 50 UNADILLA SILO—Discounted. David Mathes, Route 1, Holley, New York. LT9-9960.

SILOS—FACTORY CREOSOTE Treated Wood. Maximum insulation against frozen ensilage and absolute acid resistance. Dependable lock-doweled wind-resistant construction. Immediate delivery, Box BS-64, Unadilla Silo Co., Unadilla, New York.



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GRANGE SILOS lead in long-term, low-cost storage of haylage, silage. Write for brochure, Grange Silo Company, Department A. Weedsport, N.Y.

SITUATION WANTED

RETIRED LADY — Good cook, housekeeper, desires position in womanless farm or country home. Drives car. Box 514-PT American Agriculturist, Ithaca, New York.

NEED HELP? We may legally assist you to sponsor excellent Agriculture laborers, including tractor drivers, cattlemen, irrigators, etc. Write for free information stating your requirements to: S. D. Corona (AA) Atty. — 200 Libertad Avenue, 7th Floor, Guadalajara, Jalisco, Mexico.

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307 WORLDWIDE Different 25¢. Sensational approvals. Niagara Stamps, St. Catharines 211, Ontario.

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ATTENTION STAMP COLLECTORS — The "Delaware Valley Stamp Exchange Club" is open for membership. For full details write: Geo. W. Lamborne, 265 Nassau Ave., Paulsboro, New Jersey, 08066.

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ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 367, Ithaca, N.Y. 14851.

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REVOLUTIONARY NEW GERMAN FOOD, never clouds water. Large size with free sample, money back guarantee. $1.00 postpaid. Lundquist, Box 612, Sparta, New Jersey 07871.

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WANTED — Old books, letters, magazines. Skutel, Box 265, Southport, Conn.

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WANTED

WANTED — Freaks, albinos, midgets, oddities. Fays, Madrid, New York.

The Song of the Lazy Farmer



My neighbor works to beat the band to get each acre of his land in tip-top shape for planting crops, it don't seem like he ever stops; I hear his tractor pounding there each morning 'fore I comb my hair, and after bedtime ev'ry night he works by artificial light. He says that working night and day is how he makes his farming pay, he claims that if he took his time we might run into stormy clime, and then his spring work would be late and all his crops might meet the fate of getting froze to death next fall, then he would have no cash at all.

I can't see neighbor's arguments, to me they don't make much sense; of course, a late crop can be froze, but any real farmer knows that early plants may get too wet, and often they are apt to get all chewed up by some bugs or worms or maybe hit by early storms. Besides, poor neighbor will be so worn out when weeds begin to grow that he won't have the pep to get them killed in his corn field, I'll bet; and so I think I'll wait some more, just like I've done each year before, I'll rest until two weeks from now 'fore I begin to fill my mow.

WOMEN'S INTEREST

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3605 South 15th, Minneapolis 7, Minnesota.

FREE SAMPLES OF WALLPAPER—1963-64 catalog, 99 washable patterns. Decorating suggestions and color schemes. Instruction for measuring and hanging. We pay postage. Penn Wall Paper Mills, Dept. O, Bridgeton, N.J.

UNBREAKABLE PLASTIC FREEZER CONTAINERS. Square pints, $9.95 per 100; quarts $14.95 per 100; postpaid. Sample pint, 25¢. Oxboro Heath Company, Box 7097N, Minneapolis, Minnesota 55411.

QUILTPATCHES — 200 $1.00. Buttons 800 $1.00. Catalogue, Schaefer, Drummondville, Quebec.

HALF APRONS — 3 for $2.00. Bib $1.00. Pauline Nash, LaFargeville, New York.

TONS NEW BRAIDING — Hooking woolens, 50¢, 75¢ pound. Bright blanket piecces 50¢; large rug cottons 10—$2.00; percale, silk, 4—$1.00. Postage. Joseph Demenkow, Abington, Massachusetts.

BEESWAX CANDLES — 10″ tapers, $1.00 pair postpaid. Mrs. Fred Browne, Campbell Hall, New York.

15 BIRTHDAY CARDS 50¢. House of Cards, Box 172, Middletown, Conn.

WALLPAPER SALE—Final clearance 1964 patterns. Write for your free catalog at once. Sensational savings. We pay postage. Burlington Trading Post, 1800 Burlington, North Kansas City, Missouri.

CHILDREN'S lined Baseball Jacket, 16 team emblem, sizes 2 to 5. Cowboy dress suit size 2 to 4—each $4.00. 21 North Main St., South Norwalk, Conn.

DANISH DAIRY BARS

Within five months after the Danish dairy industry opened three teenage dairy bars, they were serving 1,000 young people daily in each of them. Seventeen new communities are opening dairy bars. The atmosphere is kept free and easy; there are areas for dancing, for listening to music, talking — or doing homework. The bars are open from 10 a.m. to 10 p.m., and they serve a variety of milk drinks, ice cream and other dairy foods.

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Now you can enjoy weeding your lawn or garden with Yarrows' lawn and garden weeding knife (Pat. Pending). Cuts weeds at their roots and picks them up, no stooping, no backache. Exclusive sold only by Yarrows. Finest materials, guaranteed $3.00. Asparagus growers you can now buy our patented asparagus harvesting knife, faster, easier, no stooping. Adults love it. $4.95. Free booklet. Yarrows, West Hatfield, Mass.



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BE SURE YOUR NAME AND ADDRESS APPEAR IN THE AD AND COUNT AS PART OF THE AD. PLEASE WRITE CLEARLY.

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N.Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

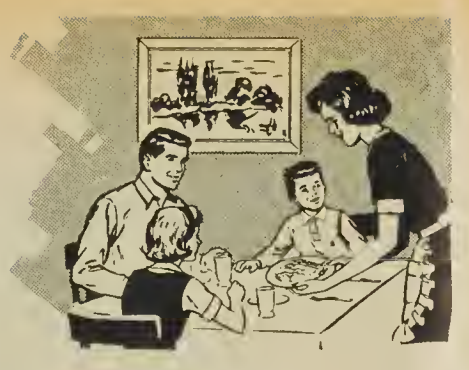
The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in *suppository* or *ointment form* under the name *Preparation H®*. At all drug counters.



'Round the kitchen

with **ALBERTA SHACKELTON**



Dairy foods are never out of season, but each year June puts these products in the spotlight again. Everyone, even the person on a low calorie diet, needs milk daily, and a cup of whole milk supplies only about 165 calories. Skim milk and buttermilk (lacking the vitamin A of whole milk) contain only about half as many calories per cup.

There are so many ways to use milk that it's easy for each family member to receive his quota. Dairy products make menu planning easy, too, because of the variety they bring to meals. Cheese and other dairy products used as alternates for meat keep the protein in a meal high and give a generous calcium bonus.

A few recipes using various dairy products are given below.

CHIFFON CREAM PIE

1 tablespoon unflavored gelatin
1/2 cup sugar, divided
1/8 teaspoon salt
1 1/4 cups milk
2 eggs, separated
1 teaspoon vanilla
1 cup heavy cream whipped
1 9-inch baked pie shell — regular, cornflake, zwieback, or nut

Combine gelatin, 1/4 cup sugar, and salt in saucepan and stir in the combined milk and egg yolks. Cook over low heat until the gelatin and sugar dissolve and mixture thickens slightly. Remove from heat and add vanilla. Chill until mixture mounds slightly when dropped from a spoon.

Beat egg whites until stiff but not dry, and gradually beat in the remaining 1/4 cup sugar. Fold into gelatin mixture and then fold in the whipped cream. Turn into baked pie shell and chill until firm. Garnish top of pie with sliced fresh strawberries, and serve with additional slightly sweetened berries.

MOCHA ICE CREAM SODA

1/4 cup instant coffee
1/4 cup sugar
2 cups cold milk
1 quart chocolate ice cream
2 6-oz. bottles chilled carbonated or sparkling water

Mix coffee and sugar. Add milk and stir until coffee and sugar dissolve. Divide mixture among 4 tall soda glasses. Divide half of the ice cream among the four glasses and mix gently. Slowly pour 1/2 bottle soda into each glass and top with rest of ice cream. Makes 4 large sodas.

DATE-NUT PUDDING

(Dairy Council)

1/3 cup sugar
3 tablespoons cornstarch
1/4 teaspoon salt
1/2 cup pitted dates, cut up
2 1/4 cups milk
1 1/2 teaspoons vanilla
1/2 cup coarsely chopped pecans
Whipped cream

Combine sugar, cornstarch, salt, and dates. Add the milk and cook, stirring constantly, until mixture is smooth and thickened. Boil vigorously about 1 minute. Remove from heat, add vanilla and nuts. Pour into sherbet glasses and chill. At serving time, garnish with slightly sweetened whipped cream, topped with half a date or pecan half. Serves 6

CHICKEN AND HAM SUPREME

1/3 cup butter
1/2 cup flour
4 cups milk OR 2 cups milk and 2 cups chicken broth
1 pound sliced mushrooms, sauteed in 1/4 cup butter
1 1/2 cups grated sharp cheese
3 cups diced cooked chicken and ham (combined)
Salt and pepper to taste
1/2 cup toasted slivered almonds

Melt butter, blend in flour, add milk slowly, and stir until smooth. Cook over low heat until thickened. Season to taste. Add grated cheese and stir until melted. Add mushrooms, chicken and ham. Keep warm over hot water.

This recipe makes a good chafing dish special. Serve over hot rice and sprinkle with slivered almonds. Serves 6.

If desired, you may place this mixture in a 1 1/2-quart casserole, top with buttered crumbs, and heat in a moderate oven 20-30 minutes.

SONG FOR SEASONS

By Alma Robison Higbee

I would dip my pen in peach bloom hue
To write a song of living fire,
And into the sky's inkwell of blue
Pen sweet words for a singing lyre,
Of a bright earth, clean and new.

I would dip my pen in summer's green
Of slender grass and surging root,
To write of ponds where cattails lean
And slim boughs hang with jade green fruit,
And the white rose heart where gold bees glean.

I would dip my pen in a crimson dye
And the golden ink of the autumn's flood,
I would write of the last blue butterfly,
Of sunset stained with wild grape's blood,
And lonely wings down the southern sky.

I would dip my pen in snow that sweeps
A feathery quilt over furrowed scars,
And write of the bright hearth fire that keeps
Loved ones warm when the chill white stars
Burn and the cold earth sleeps.

FOODS MAKE NEWS

During the past three years, new poultry and egg convenience foods have been developed and market tested by Cornell's Departments of Agricultural Economics and Poultry Husbandry. The purpose of this work has been to provide an added market to help the poultry economy by increasing the consumption of eggs and poultry. Perhaps you live in an area where some of these products have been market tested.

Frozen French toast, to save the homemaker time in preparing a major breakfast egg dish, was an early development. Two slices of this French toast provide the equivalent of one egg. More recently a 500 calorie chiffon pie was introduced. Still in the market test stage is the hard cooked egg roll. This is a sausage-shaped roll of 4 eggs with yolks lined up down the center and the roll encased in plastic. It is ready to slice and serve and looks exactly like a slice of hard cooked egg. While it is especially valuable for hotel and restaurant use, it is a convenience item for homemakers in preparing salad, sandwiches, etc.

Better packaging of eggs for marketing also received attention. You may have seen one or more of the following under test: a plastic egg carton with a transparent top and aqua-colored base, so constructed as to seal each egg individually (to hold egg quality) in an egg-shaped cushioned capsule; a "Kids' Pak" for marketing pullet and peewee eggs; plastic cartons of colored Easter eggs nested in a layer of orchid shredded cellophane or green waxed paper, and the newer Family Egg Packs with 4 large and 8 medium or 8 small eggs in a carton.

To increase the use of heavier chickens (too large for frying and broiling barbecue-style), a merchandising program to sell the "meal-size roasting chicken" was developed. Personally, I have found these heavier fryers very delicious when stuffed and roasted. One is adequate for 4 persons, and a platter of two or three birds is real company fare. For the user of luxury-type foods, smoked heavier fryers were developed.

To increase the market for Leghorn fowl, generally sold for soup or as stewing chicken, and having very little consumer appeal, the following convenience food products were developed: Chickalona, Chicken Bologna (Chickalona plus paprika and a cure mixture), Bake and Serve Chicken Loaf, Chicken Sticks, and the most recent, placed on market for testing in January, Chicken Hash.



Photo: Dudley-Anderson-Yutzy

CHIFFON PIE BEAUTY . . . A light and smooth dessert for spring entertaining is a chiffon cream pie topped with fresh strawberries. The filling, basically a simple custard, also has whipped cream and unflavored gelatin added to give it richness and airy height.

Other New Food Developments

Freeze-dry mushrooms in packages requiring no refrigeration, ready to use after just 3 to 5 minutes in cold water bath; sweet potato flakes, similar to white potato flakes; pumpkin powder to be converted into mixes for pie; instant tomato juice from powder; apple juice appetizers from super concentrates, reconstituted to fresh flavor by adding water; brown and serve bacon; whipped cream stabilizers; frozen tomato slices in polyethylene bags, and even new eggs (from hens fed a special formula in which vegetable oils rather than animal fat substances are used) to improve the balance between the controversial "saturated" and "unsaturated" fats!

American Agriculturist, June, 1964

EVERYONE'S FAVORITE

by Nenetzin R. White

For sheer beauty you just can't beat roses! From the new Hybrid Teas to the old fashioned shrub roses, they rate first for color, form, aroma, and decorativeness. A common belief is that there is a mystic or magic touch necessary to grow roses. Nonsense! Good planning, proper planting and care or, in other words, a bit of work is the true answer.

The most popular of all roses are Hybrid Teas, or the monthly type. They are also the most exacting in their requirements, but their large shapely blossoms, long stems, and constant blooming make them well worth the extra attention. Let's see what these favorites need in order to thrive.



An attractive group planting of Floribunda Roses in a raised bed setting.

Photo: Amer. Assn. Nurserymen

First, Hybrid Teas require a sunny, well drained spot. Many planting guides will say "or semi-shade," but believe me, you can expect problems if you start with a shady spot. And good drainage is a "must"; heavy soil just won't do. Put drainage under the beds or use raised bed plantings. The incorporation of organic material in the beds is also important, and peat moss is generally used to keep the roots cool and moist.

Next, buy good, No. 1 quality roses and place them in a hole large enough so they won't be crowded. Because of the shape of the roots, it is helpful to make a little mound in the center of the planting pocket and spread the roots out around this. Plant to the depth where the soil mark shows on the plant, and then water well. Cultivation isn't necessary, but food, water, and spraying are imperative. Water whenever natural rainfall is not abundant.

Feeding is the key to good foliage, and that in turn produces good flowers. Two to three applications of fertilizer per year should give you an abundance of roses. I happen to like organic fertilizers because they won't burn and will feed over a long period of time. In my many years in the nursery and landscape field, I have noted that the loveliest roses are usually very heavily fed.

Normally, a combination insecticide and fungicide will take care of insects, blackspot, fungus, and all. Use this every week or two, or more often if necessary. Dust or spray, but be sure to get the underside of the leaves and (especially in early spring) the soil areas. This will help to keep soil-borne spores from getting on your plants. If you spray, try to do this in the morning because many diseases are furthered by having the plants go into a night wet.

Does all this sound like a mystery? Of course not! It sounds like some good gardening fun with beautiful roses your reward.

Other Types of Roses

Following are other types of roses which you may choose for your lawn and garden. All of them will benefit from the care I have described, but many will get by with less than the Hybrid Teas require.

Floribundas have smaller flowers in clusters that open fuller than Hybrid Teas and which afford good masses of color. They are quite dwarf, and the foliage is full, thus they lend themselves well to hedges and group plantings. Also, they don't seem to have the bug and disease problems that the hybrids do.

Grandifloras combine the flower size of the Hybrid Tea and the abundance of the Floribunda. They are tall and vigorous with flowers produced singly or in clusters. The best features of both backgrounds are combined in this type.

Climbers grow fast and will hide unsightly areas or make a beautiful background. They are also used on fences, trellises and arbors. Most of these should give you some flowers until frost strikes.

Tree Roses are unusual and luxurious specimens. The bush or head is produced at the top of a three or four-foot trunk. Tree Roses can be either Floribundas or Hybrid Teas, in their full range of colors. In our Ithaca, N. Y., area, you can best care for these during the winter by digging them and then burying in a trench. Now, Miniature Tree Roses are also available.

Miniature Roses are from eight to fifteen inches tall. They are true miniatures of regular roses, with flowers from the size of a nickel to a quarter. They are lovely in rock gardens and planted near your outdoor living room.

Hedge Roses are being developed rapidly and range from the large Multiflora (used mainly as a barrier) to smaller ones like Robin Hood, Red Glory, etc.

Shrub Roses are suitable in a flowering border and have much to recommend them to the gardener. They are literally covered with fragrant blossoms in the spring and keep good foliage all year. They require a minimum of care, are extremely hardy, and are bug and blight resistant.

These lovely, old-fashioned roses frequently have large rose hips, which are attractive to birds as well as to humans. Grandmother's Cabbage Roses will still envelope your whole house with their fragrance. Harison's Yellow is also most fragrant and has very spiny stems and good height. The Rugosa Roses have mammoth, single blooms with immense orange-red hips.

Write to me if you want to know more about Hedge and Shrub Roses. There are many others that are special favorites of ours. And with our soft, pink terrace, we are going to put out tubs of Tropicana, 1963 "Rose of the year." Stop by when you are in our area; the latchstring is always out.

What's Your Hobby?

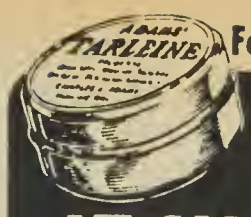
CARVES MINIATURE SHOES

For more than a quarter of a century I have followed a hobby of carving miniature shoes from wood. Some of the wood has been taken from historic buildings, ships, trees and bridges. These shoes are made in sizes ranging from ¾ inch to 12 inches in length, and no two are alike. All are made of one piece of wood; all are hand carved.

My shoes have gone to many parts of the world — to men, women, and children of all ages and nationalities. I have made more than one thousand to date. The names of many capital cities and famous persons are on my list. All shoes go postpaid, with no obligation to anyone receiving them. They go as souvenirs of good will and friendship — Harold Y. Knapp, R. 3, Ballston Spa, N. Y.

WRITES POETRY

My hobbies are reading and writing poetry. I'm only an amateur, and don't write poems to sell. I like to write poems for different people and like to take a farm picture, an animal picture, or maybe a hunting picture and write a poem to match the picture. — Paul A. Brown, 726 Riverside Drive, Augusta, Maine



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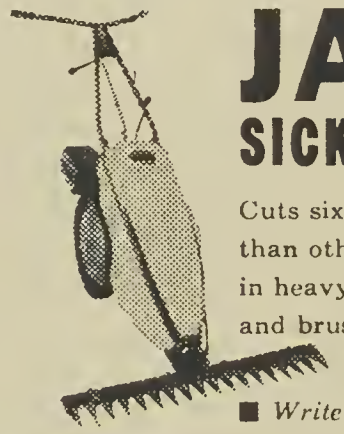
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Who's Next?



An old-time country store, one of the many rare pictures illustrating Ed Eastman's great book, JOURNEY TO DAY BEFORE YESTERDAY.

ENTHUSIASTIC REVIEWS AND LETTERS—

about Ed Eastman's newest book—JOURNEY TO DAY BEFORE YESTERDAY—continue to pour in. Already the book is well into its second printing. Just about everybody—old and young—likes it.

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- ●—Keeping the book on the reading table near the bed so that it could be re-read to forget the problems of the day.

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The AA Clothes Line

4713. Apron with side buttons, applique trim, pocket. Printed Pattern Half Sizes 14-1/2 - 24-1/2. Yardage in pattern. 35 cents.

4683. Easy shift has panel, pockets. Printed Pattern Misses' Sizes 10-18. Size 16 takes 3-1/2 yards 35-inch fabric. 35 cents.

9264. Button-trimmed sunner, no waist seam. Printed Pattern Half Sizes 12-1/2-22-1/2. Size 16-1/2, 3-1/8 yards 35-inch. 35 cents.





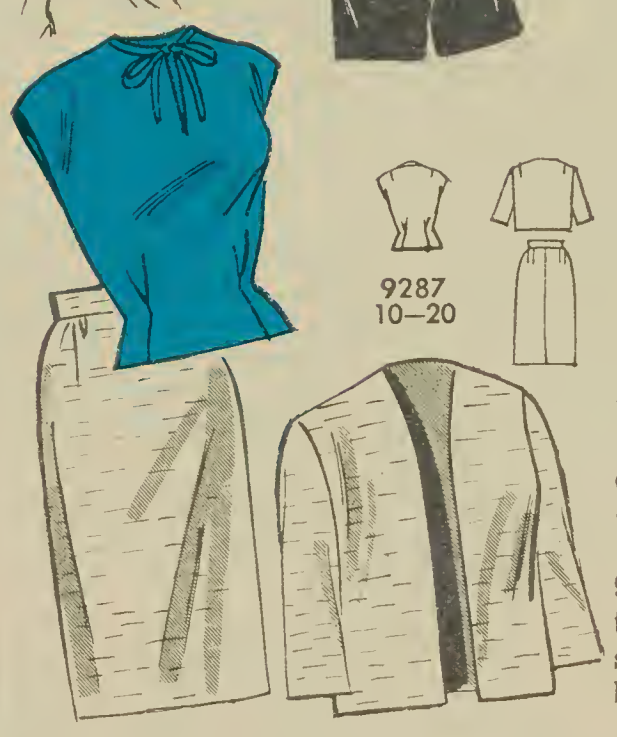






9074. Smart collar, side buttoning. Printed Pattern in Half Sizes 12-1/2-22-1/2. Size 16-1/2 takes 4-1/8 yards 35-inch. 35 cents.

4554. Slacks and shorts for tall, average and short figures. Printed Pattern in Misses' Waist Sizes 24, 25, 26, 28, 30, 32 inches. 35 cents.



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With AMERICAN AGRICULTURIST Advertisers



The Peerless Equipment Co., Inc., Joplin, Missouri, has announced a new tillage tool, the Peerless All-Purpase Ratary Harrow, which cambines the tillage principles af disc, spring, and spike taath harraws in ane time and fuel saving operatian. The big wheel with slanted spike teeth ratates on its central axis as it is pulled, and harraws in a criss-crass fashian as it ratates. The slaping teeth release and spread trash and prevent clagging. It is manufactured in 8, 10, 12, 14 and 16 faat sizes, either drag type or three point hitch.

International Harvester Company, 180 North Michigan Avenue, Chicago, Illinois, has announced availability of all-wheel drive on their highpowered models 706 and 806 Farmall and International tractors. For the row crop Farmall, IH offers an all-wheel drive attachment which enables farmers to switch back and forth between the regular tricycle front end and the all-wheel drive wide front axle.



Now, a one-man post pilling device which pulls posts readily and easily, even from highly compacted ground, is being sold by the Top Notch Company, Toulon, Illinois. It's called the Post-Puller and works on a simple leverage principle.

High grinding and mixing capacity — and unusual grinding uniformity — are key features of a new model Mixer-Mill produced by Badger Northland, Inc., Kaukauna, Wisconsin. Corrugated grinding plates at ends and bottom of the hammer mill chamber reduce dust and cut down on screen wear. Governor-controlled feed apron makes grinding possible with even small tractors.

Deere & Company, 3300 River Drive, Moline, Illinois, has added two new balers specially designed for large acreage growers, commercial hay growers, and custom operators, to its John Deere line. The heavy-duty 216-T Twine-Tie and 216-WS Wire-Tie Balers make bales with a 16x18-inch cross section; bale length is adjustable from 12 to 50 inches. Bale density is hydraulically controlled.





VISITING

with

Home Editor Augusta Chapman

Professor Gordon J. Cummings of Cornell's Rural Sociology Department chose "Change" for his topic in speaking to the N. Y. State Council of Rural Women at their April meeting in Ithaca. Like death and taxes, change is inevitable, and Professor Cummings pointed out that our perspective will be different if we are not too disturbed by it, but put forth our efforts to control and guide it wherever possible.

We've all heard how our farm population has declined since 1900 until today in New York State, we have 1/4 as many farmers, producing 1/3 more, on 1/2 the land. About 85 percent of our people live in the State's seven major metropolitan centers, with the areas around these centers growing by leaps and bounds. Here, we have a coming together of people with different standards and ideas of what is desirable for our communities. Some have values which are traditional and slower; others can't operate fast enough!

Much has been written and many words spoken on the need for farm and non-farm people to understand each other's wants and concerns, also to realize that many of these needs are mutual — conservation of water and wildlife resources, urban renewal, slum clearance, etc.

For instance, those of us who live in the country are likely to think that urban renewal and slums are strictly city problems, but as Professor Cummings stated, "Cities are important to people living outside and working in them . . . and we need to look at our communities in relation to the county, and then in relation to the larger area of which it is a part."

And cities no longer have a monopoly on slums — look at the ugly blotches auto graveyards make along our country roads. (And some of our used car lots aren't much better!)

Most important, in some cases it is still possible to plan how we would like our communities to develop, putting to good use our resources for the general betterment of all the people. If we default in local leadership, we can expect state and federal governments to take over, oftentimes when they don't want to.

Oysters In "R" Months

Have you always thought that oysters were good to eat only during the "R" months? The Interior Department's Fish and Wildlife Service says this is not true and that oysters reach their peak of perfection in May and June. They are fatter and taste better in the spring, but are thinner and with less flavor in September and October.

Seasonal demand has made fall the time to begin harvesting oysters, perhaps because of the "R" month myth. Probably poor storage facilities and slower transportation in the early days helped to bring about this belief.

If we were to change our oyster eating habits so they could be harvested in late spring, the industry might benefit greatly, according to the Fish and Wildlife Service. Oyster losses are usually heaviest in summer and can run as high as 25 to 50 percent. Also, since oysters are fatter in spring, there'd be a greater yield per bushel harvested. (Do you suppose they might be cheaper too?)

This was all especially interesting to me, not only because I'm very fond of oysters, but also because we used to have friends in Port Norris, New Jersey, where growing and harvesting oysters in Delaware Bay is the main village industry. On our several visits there we were told of the increasingly heavy oyster losses each year and the oystermen's concern for the future of the business.

Probably our most unusual "picnic" was a 4th of July excursion on an oyster boat. We were far enough out on the Bay so we couldn't see land, and I've never forgotten how extra good the food tasted nor the strange fish that we caught — sea robins, blowfish, small sharks, and other queer looking specimens, foreign to my "landlubber" eyes.

Food and Home Fair

As I write this column, material is starting to come in the mail from USDA's Food and Home Fair for Consumers being held now (April 14-30) in Washington. Two items quickly caught my attention.

The first is an IQ (interior quality) Sorter for apples. The sorter beams light through the fruit, detects hidden defects, and prevents inferior apples from reaching the market. It also divides the apples into five groups according to interior quality or tastiness. Green pigment present in all apples is measured by the IQ Sorter, and in general, the more pigment present, the less tasty the apple! Preliminary tests indicate that potatoes can also be sorted in this fashion.

The second item is a finish, WURLAN, developed by the USDA that makes wool shrinkproof. Outfits made from WURLAN wool can be laundered at home in hot water and detergent with no fear of shrinking.



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ED EASTMAN'S PAGE

"THE EVIL THAT MEN DO"

A woman recently said to Margaret Roe, my cousin, that she liked what Ed Eastman wrote but would like it a good deal better if he would pep up his writing with some sex.

If I have to depend on sex for the popularity of my books and articles, then I will not have any readers. I have never written and never will write a single word that I would be ashamed to have my wife, my mother, or a child read.

I think the filth that is now published in books (many of them best sellers) and magazines is in poor taste, and dangerous to the public morality! I fully agree with William E. Barrett who, like Shakespeare, said:

"The evil a man does lives after him. When you have written a book, you can't call it back. It goes on colliding with human lives long after you are dead."

The many letters that come in every mail from enthusiastic readers of my latest book — JOURNEY TO DAY BEFORE YESTERDAY — prove that it is never necessary to write anything evil in order to be popular. I have proof that this book is bringing happiness to many people and that makes me happy — more so than anything I have ever done.

Perhaps this book is an answer to your graduation present to some young friend, or for the birthday of someone you love.

If you want a copy, send your check or money order for $5.95 to AMERICAN AGRICULTURIST, Book Department, Savings Bank Building, Ithaca, N. Y. and your copy will be mailed postpaid.

A FUTURE FOR APPLES?

Should growers plant more apples? Should young men go into the business?

I am no prophet, but here are some facts for guidance.

The income from apples has been steadily increasing since 1957, and the New York-New England Apple Institute reports that the annual apple crop of approximately 122 million bushels averaged about $150 million from 1947-1957. The same amount of apples brought $205 million in 1958, and in 1961-62 this increased to $240 million.

The Institute says that this increase has been due to better quality apples and to apple promotion.

Of course there are other factors that enter into the picture, particularly for young men who are thinking of starting in the business. These include a liking for the business, a thorough knowledge of it, the right location, and the planting of varieties that are most likely to be in demand in the future.

SUBURBIA IS TAKING OVER

Some years ago, when American Agriculturist was still published in New York City, we lived in Mineola, and I commuted from Long Island to New York City every day. Our home was on the edge of the village and immense potato fields came right up to our back door. But no longer! Suburbia has completely taken over, and the big potato fields are now thickly covered with homes just like a city.

That's an example of what is happening all over America. The spreading villages and cities, the great highways, and the industrial firms that are moving to the country, are rapidly using up agricultural land. Another big cause of the loss of farm lands is the rapid growth of suburban homes. Full-time farms no longer dominate the countryside. There are now 7 rural non-farm persons in New York State for every person living on a farm.

The result is that since 1900 about one-half of the land in farms in New York State has gone out of farming — about 10 million acres. The same thing is happening, to some extent, in all the states.

Increased Efficiency

Many people are worried about the food supply. I doubt if there is any cause for this worry. A considerable portion of the land that has gone out of production was not fertile and had little value for farming. And the increased efficiency of farmers will always furnish plenty of food if consumers are willing to pay for it.

But socially and politically, this loss of farm land and of farmers is another story. Full-time farmers now form such a small percentage of the total population that, unless they keep themselves strongly organized, they will have little to say about laws that affect their business and their lives.

The loss of so many farmers also is not good from a social standpoint and from the welfare of the nation itself. Until comparatively recently, farm boys and girls — trained in habits of work and responsibility and in the importance of the individual — have been a tremendous factor in maintaining the principles that made this country great.

WE LEAD THE WORLD

A little paper called FORD FARMING, published by Ford Motor Company, points out that family farm ownership is the highest in history. Seventy-nine percent of the farmers own all or part of the land they farm, and these farmers are the best in the world. But let Nikita Khrushchev tell it:

"Soviet farmers are using more than 7 times as much labor to produce grain as the United States; more than 14 times as much labor to raise cattle; more than 16 times as much labor to raise pigs."

EASTMAN'S CHESTNUT

Mrs. Maxson, the daughter of Ida Harrington — who some of you will remember as a Farmers' Institute speaker and Extension worker for the New York State College of Home Economics — told me this story which her mother used to love to tell on herself.

While Ida Harrington was giving a lecture she noticed a little boy sitting in the front row with his mother. The boy was, of course, not the least bit interested in her lecture, and feeling sorry for him as she saw him squirming in his seat, she said:

"Sonny, after my talk is finished we're going to have movies."

"Gosh!" sighed the boy. "That won't be 'till after you're dead!"

American Agriculturist, June, 1964

Lilacs

I wonder how many of you have had a fleeting moment of happiness as you passed near a lilac or rose bush in bloom and caught some of their beauty and fragrance. It is said that the sense of smell will revive memories more than anything else.

When I smell lilacs or roses, I am often transported back to the June days of my youth to a church decorated for a Commencement or a wedding. For a moment I live in the long-ago time of gay companions, when the beckoning future stretched on and on beyond a horizon where everything was possible and everyone happy. We live to learn, alas, that not all of our dreams come true. The gay companions are mostly gone, and happiness — at best an illusive thing — is hard to obtain and difficult to hold.

Nevertheless, it is possible to acquire some of this special and precious quality, if we learn not to expect too much, and realize that it comes in small amounts from the things and people right around us — like the whiff of fragrance from a lilac bush in full bloom.

Scattered across the hills of our Northeast country are the ruins of thousands of farm homes, where once lived a fine people on not too fertile land. These people toiled to feed and clothe their families, and to give their children an education. Look carefully in the weeds and brush covering these old ruins and you will often find an old lilac or rose bush. Robert Adams of Cornell described an old lilac bush so beautifully in his poem "Lilacs":

The mother's honds were rough with toil
Who set thot liloc in the soil.
Thonks be to God who gove the wife
One touch of beouty in her life.
The fother worked from sun to sun
For living was not lightly won.
The fields where he wos wont to grub
Are overgrown with brush ond scrub.
His wolls ore down, their mighty stones
Are crushed to moke o roodwoy's bones.
Lost are his lobors greot ond smoll,
But mother's bush outlives them all.
And ever with the wormth of May,
Whot time we keep Memorial Doy,
The liloc wokes to sudden bloom
And wofts a messoge to her tomb.
Gone are the sons her pongs gove birth,
Her fires ore deod upon the heorth;
Sunk the flomes ond black the embers,
But the lilac still remembers.
It blooms for her ond spreads its scent,
The incense of o sacroment.



This milkman claimed that his milk was pure, but it was far from it. At the time when this picture was taken less than 100 years ago, there were no sanitary requirements for the milk producer and none from the farm to the consumer. Some of the milk came from diseased cattle. It was not pasteurized nor cooled, and the bacteria count must have run dangerously high most of the time.

As the picture shows, consumers brought their own containers and the milkman dipped it out with a dipper that only got washed once in a while. Today, in this Dairy Month of June 1964, milk is one of the cleanest and purest foods on the market — and that is real progress.

AA SERVICE BUREAU

GYPSY INVASION

The same week that our April issue, carrying our annual warning against itinerant salesmen, reached our subscribers, we were told the "gypsies" had arrived in Central New York. We received information from United Lightning Protection Association advising that a sizable number of incomplete lightning rod systems had been installed by these "gypsy" operators; that a large number of the installations had been inspected by U.L.P.A. representatives; and that these installations were not in accordance with the code of Underwriters' Laboratories or the National Fire Protection Association. Such systems cannot be expected to function as lightning protection systems and could be more dangerous than no system at all, according to U.L.P.A.

These "gypsies" usually drive a pick-up truck with a local license plate and indicate that their place of business is in a nearby community.

If you have had such an installation, we suggest that you have it inspected as soon as possible by an expert. Your county agent, or insurance agent, may have the address of the nearest U.L.P.A. member. If not, you may write United Lightning Protection Association, Inc., Box 462, Ithaca, N. Y.

These itinerants may also be offering to spray barns, blacktop driveways, replate metal, or repair chimneys. In the Buffalo area, some were posing as "faith healers."

If you are approached by any salesmen, be sure to ask for credentials — a business card which should have the company name and address. Insist on a signed contract which states cost and standards. Make your payment to the company when you are sure the work has been satisfactorily completed.

LINE FENCE

"I heard that the line fence law has been changed; that if you own a farm but do not pasture cattle you don't have to build or repair any line fence. Would you please set us straight on this law?"

To get an authoritative answer we wrote the New York State Department of Agriculture and Markets, and we received the following answer from their Counsel:

"As you know, the line fence law is found in the Town Law. I have examined the 1963 supplement which contains the amendments enacted into law as a result of the 1963 legislative session and I do not find any such change as you mention. Section 300 still requires an apportionment and the responsibility to make and maintain a just and equitable portion of the division fence between the lands of two adjoining owners.

"However, there is an exception which has been in the statute for some time to the effect that the owners may otherwise agree, and Section 301 says that when the owners of adjoining lands shall choose to let them lie open neither shall be liable to the other in any action or proceeding for any damages done by animals lawfully upon the other's premises going upon the lands so lying open or upon any other lands of the owner thereof through such lands so lying open. It could be that this provision, which as I say is not new, is what your correspondent had in mind."

> So, there has been no recent change. Each adjoining owner is responsible for his half of the line fence, unless both owners agree not to fence, in which case neither will be liable to the other if his animals cause damage.

CAN YOU HELP?

Mrs. Samuel Louden, R.F.D. 1, Champlain, N. Y., would like to exchange nearly any Red Cross Seal for a 1910, 1911, 1913 or 1914 Seal.

* * *

Miss Viola M. Tempel, Tempel Inn, Inc., Livingston Manor, N.Y., is interested in buying an old spinning wheel.

* * *

Mrs. Lester E. Onyan, R.F.D. 2, Spring St., Hamilton, N.Y., would like to hear from anyone who has a Sept. 1942 Harper's Bazaar.

* * *

"A farmer traveling with his load
Picked up a horseshoe in the road,
And nailed it fast to his barn door
That luck might down upon him pour."

Mr. Clark Z. Ford, Cherryplain, N. Y., would like the rest of this poem, which he says appeared in AMERICAN AGRICULTURIST 80 years ago.

* * *

Mrs. Clyde N. Seigle, Box 52, Finesville, N.J., would like book — Crummett, Poly de, Button Collecting, Chicago Lightner Pub. Co. '39.

ADDRESSES WANTED

Mr. Richard E. Galarneau, formerly of Rochester, N. H. He may be employed as a cook.

* * *

Mr. John M. Mack, formerly with Northampton Aluminum Products, Northampton, Mass.

* * *

Mrs. Carol Pearson, P. O. Box 12, Canterbury, New Hampshire, would like to locate the brothers and sisters of her father, Raymond William Garvey. Their names are believed to be: Margie, Myrtle, Edith, Keith, Donald and Cecil.

Loses Arm in Farm Mishap



Carlton Blenco of Fort Plain, N.Y. was on the last round when a bunch of hay jammed into the bailer. He was thinning it out to feed into the rollers—a stalk of hay or weed wound around his hand—the next thing he was in the machine to his shoulder. He freed himself and without his right arm walked nearly a quarter mile for help.

Receiving $4690.00 from local agent Frank Pine of Fonda, N.Y., Mr. Blenco gave this letter of thanks:

"I am very glad I had North American Accident Ins. several years ago when I broke my leg. But, I am even more grateful that Frank Pine sold me two more accident policies since that time. I would like to express my sincere gratitude to Mr. Pine for his insistence of the necessity of the coverage by North American."

His combination of North American Accident protection which costs only $75 a year helped him this way:

Loss of arm benefits	$3150.00
Hospital and Medical benefits	1540.00
Total	$4690.00

OTHER BENEFITS PAID

Lewis Waters, Whitesville, N.Y. $ 130.00 Caught finger in cultivator—cut finger	**Walter Webster, Medina, N.Y.** $ 174.56 Fell from chair—injured back
Thaddeus E. Harford, Lisle, N.Y. 214.84 Auto acc.—whiplash injury	**Martin Weber, Parish, N.Y.** 308.60 Auto acc.—whiplash injury
George Hess, West Valley, N.Y. 514.10 Playing ball—injured knees	**Lisle German, Schadack Landing, N.Y.** 113.59 Fell—injured head, cut near eye
Melvin Pilkins, Moravia, N.Y. 251.42 Fell off grain drill—inj. back	**Allen L. Widrick, Heuvelton, N.Y.** 1,007.35 Fell from hay mow—fractured vertebrae & pelvis
Louis Samaritano, Jamestown, N.Y. 621.70 Fell from tractor—back injury	**Harry Kingsley, Potsdam, N.Y.** 192.84 Fell—injured shoulder
Owen Hofbauer, Pine City, N.Y. 915.59 Fell down stairs—fract. skull & vertebrae	**William Magill, Middleburg, N.Y.** 280.00 Turned ankle on door sill—broke ankle
Frank Ecclestal, Greene, N.Y. 466.23 Cleaning pipe on chopper—caught fingers	**Robert Mason, Woodhull, N.Y.** 380.05 Slipped & fell—injured hip
Dwayne Holmes, McGraw, N.Y. 215.00 Crushed by cow—injured ribs	**Ruth Hammond, Avoca, N.Y.** 1,415.00 Fell—fractured left hip
Peter Svegl, Bloomville, N.Y. 1,726.42 Thrown from jeep—fractured spine	**James L. Beebe, Newark Valley, N.Y.** 530.86 Auto accident—whiplash injury
Floyd Francisco, Johnstown, N.Y. 202.70 Caught in V-belt pulley—injured finger	**Claude L. Adams, Groton, N.Y.** 667.90 Slipped & fell on milk pail—chest injuries
Howard Hall, Batavia, N.Y. 770.18 Slipped and fell—inj. shoulder	**Berton Dymond, Kerhonkson, N.Y.** 921.92 Fell against PTO shaft—broke arm, severe burns
Madelene B. Sutton, Prattsville, N.Y. .. 141.40 Auto acc.—injured back	**Donald Reid, Argyle, N.Y.** 442.60 Using saw—cut hand and tendons
Blanche Rockwell, Dolgeville, N.Y. 317.67 Fell on porch—fractured shoulder	**Leon Van Quekelberg, Newark, N.Y.** 539.64 Kicked by cow—injured knee
Lyle Moser, Copenhagen, N.Y. 593.45 Slipped pulling on boot—injured back	**William J. Rosenthal, Arcade, N.Y.** 288.56 Kicked by cow—fractured ankle
Joseph LaLonde, Jr., Castorland, N.Y. .. 387.41 Plow lever came down on hand—frac. wrist	**Hazel Wilkins, Penn Yan, N.Y.** 600.82 Fell—fractured elbow
Wilfred Hunt, New Woodstock, N.Y. 1,033.43 Mauled by bull—fract. ribs, internal injuries	**Leon Ballard, Troy, Pa.** 810.30 Kicked by cow & fell in gutter—injured back
John W. Bubniak, Ft. Johnson, N.Y. 274.28 Thrown from hay wagon—injured shoulder	**Ray Shedden, Gillett, Pa.** 250.00 Driving tractor & hit by car—injured back
Leo Kowalski, Lockport, N.Y. 174.63 Fell in haymow—injured shoulder	**Louis Rickard, Honesdale, Pa.** 103.57 Crushed by cow—cracked rib
Dora Prior, Sauquoit, N.Y. 281.90 Fell down stairs—fractured leg	**William Terpstra, Sussex, N.J.** 1,029.50 Attacked by bull—broke ribs, bruises
Nora Puttkamer, LaFayette, N.Y. 780.00 Caught foot on chair and fell—fract. hip	**Henry A. Race, Belvidere, N.J.** 235.72 Kicked by cow—injured knee
Chris Catalano, Ionia, N.Y. 353.06 Slipped and fell—fractured leg	**William Himmel, New Brunswick, N.J.** .. 405.47 Using saw—cut tendons thumb
Walter Hoffman, Cuddebackville, N.Y. 265.00 Thrown from tractor—fractured ankle	**William E. Flock, Jr., Trenton, N.J.** 601.22 Fell from a tree—back injury
	Domenic Connuli, Burlington, N.J. 877.02 Truck accident—injured shoulder

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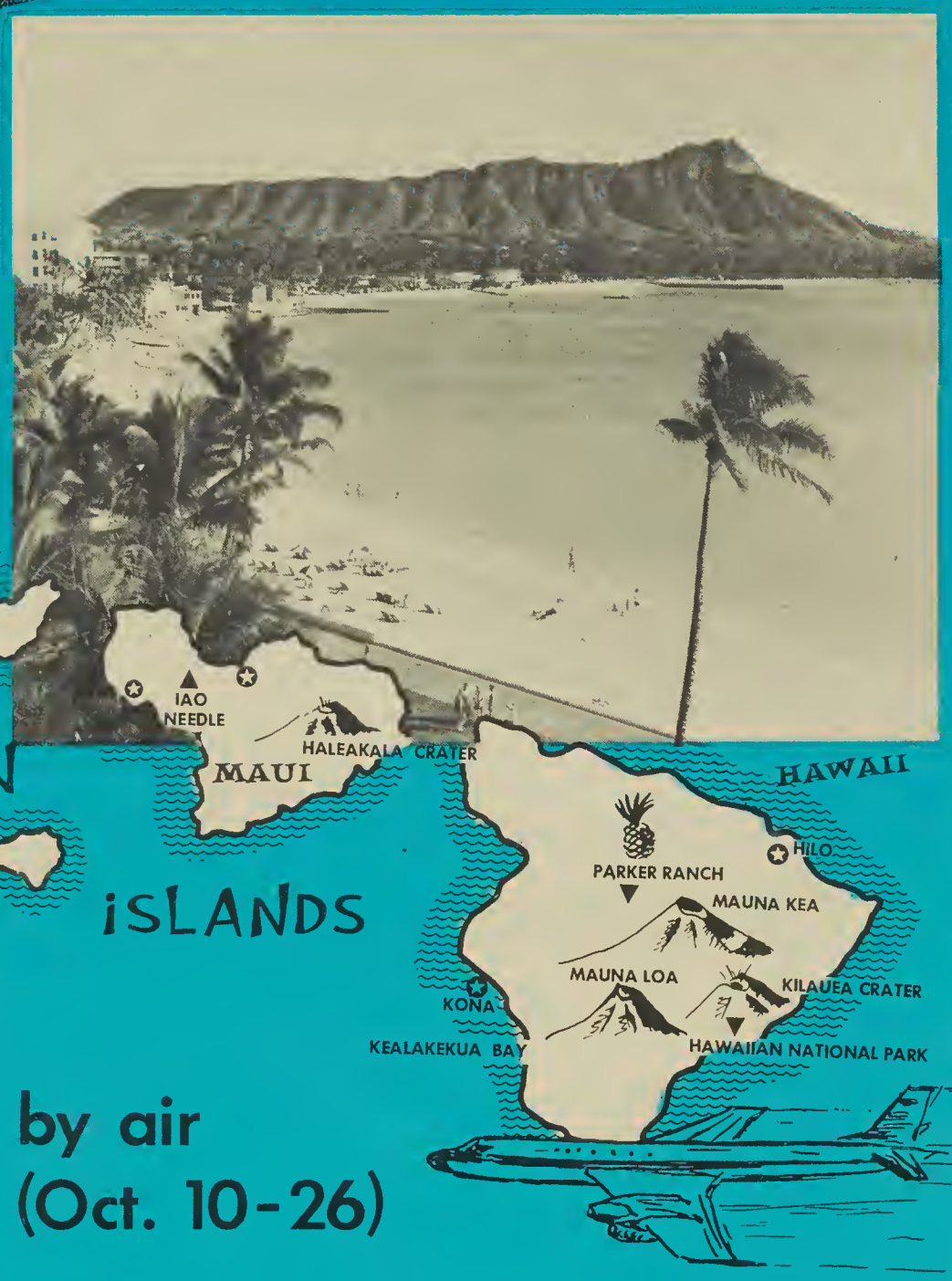
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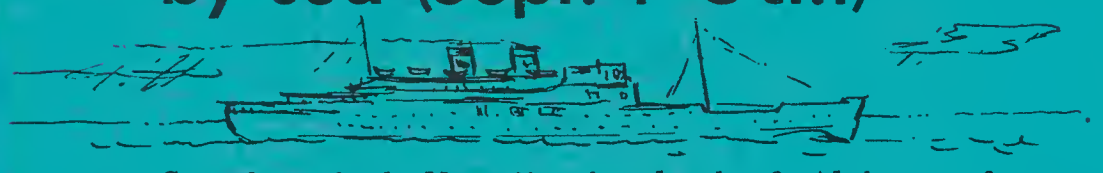
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JULY 1964

American Agriculturist





New: Back rubbers for dairy. Made possible by new Ciodrin. Let cows treat themselves on pasture—save **you** work.



New Vapona Resin Strips can kill flies from across a milkroom. Take seconds to hang, work for weeks.



Vapona spreads far from where it's applied, seeks out flies behind beams, etc. *even when applied as spray or bait.*

How to get complete, low-cost fly control tailored to your setup—

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Both Vapona and Ciodrin control face fly, horn fly, house fly, stable fly. Both can be applied directly on lactating cows and beef animals. Neither creates residue problems in meat or milk.

Here's how to use each one in a program tailor-made for you.

Use Vapona in your barn. Spray directly on your cows or apply as liquid or dry bait. Use new Vapona Resin Strips in milkrooms. Vapona gives fast knockdown, thorough kills.

Use Ciodrin to protect pasturing cows. Spray cows in your barn—get day-long control on pasture. Use in face- and back-rubbers. Ciodrin is the *only* insecticide accepted for use in back rubbers for dairy cattle.

> *By knowing the benefits of each insecticide, and the different ways you can apply them, you can tailor your fly control program to your barn, milking and pasture setup.*

NOTE: You can apply Vapona and Ciodrin *together* to get benefits of both insecticides: fast knockdown in the barn, residual action on pasture.

Vapona seeks out flies

Whether you spray, fog or bait with Vapona, it spreads far from where it's applied. When you spray your cows, it spreads through the barn, behind rafters, beams—swiftly kills flies conventional insecticides may never reach!

New Resin Strips are 20% Vapona® Insecticide in resin. They take just seconds to hang in milkroom or parlor, yet they control flies for weeks. Resin strips eliminate both spraying and residue problems. Use in confined areas.



Both Vapona and Ciodrin sprays control face fly. Also use Ciodrin in face rubber. Or paint Vapona syrup bait on cow's forehead.

Ciodrin controls flies on pasture

Ciodrin works on pasture where ordinary insecticides lose their punch. One spray per day stops all 4 important fly species including face fly. (NOTE: for stable fly control, spray legs and belly.)

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FOR THE NORTHEAST FARMER

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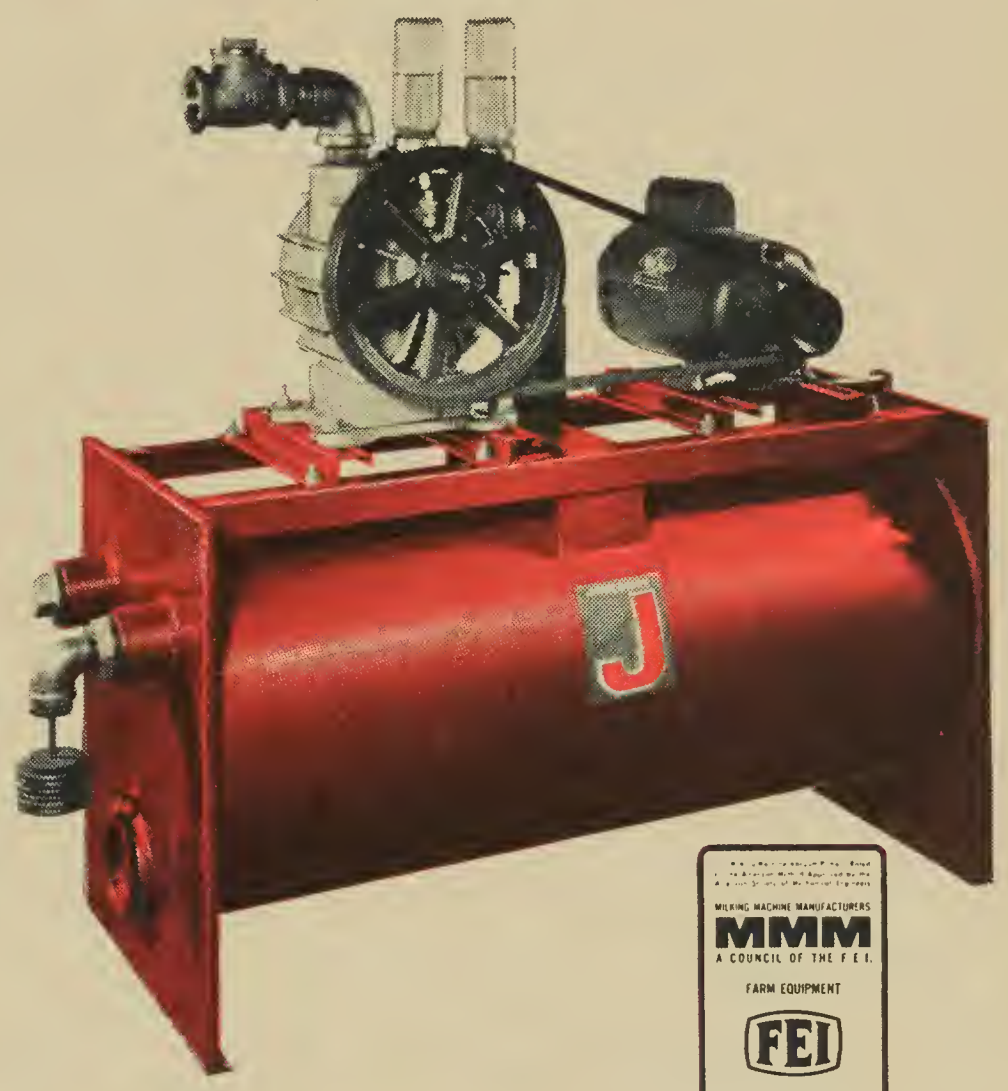
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OUR COVER

What farmer has not found a deep satisfaction in feeling the golden kernels of harvest time flow through his hands? Across the ages man has paused, as Abram Sensenich of Lititz, Pennsylvania, does here, to feel his heart warmed by the fruit of his effort and the creativity of his God.

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EDITORIALS

by GORDON CONKLIN



THE DEFENSE RESTS

One of the favorite indoor — and outdoor — sports in our troubled world is to flay the United States for every problem that besets humanity. Across the seas, poor old Uncle Sam constantly loses fingers on the hand with which he feeds. The bigwigs in countries large and small denounce the rich Americans because the billions of dollars they gave in foreign aid was for last year. The plaintive cry is, "What have you done for us lately?"

From lectern, pulpit, and street corner within our national boundaries thunder condemnations of the national scene — ranging all the way from segregation to the fact that a well-known gentleman from Texas picks his hounds up by their ears. It is considered corny to show patriotism, and people avoid at all costs being labeled "flag wavers." We live in a complex age, it is argued, where nothing is absolute and old values are no longer meaningful.

Amidst all the denunciation, I'd like to speak up on behalf of Uncle Sam. He surely has his faults and needs to confess his sins just like you and me in order to improve, but he possesses some towering virtues. To describe him only in terms of his weaknesses is not only inaccurate but also dangerous — dangerous because it tempts critics to desert him entirely and label him all bad.

In turn, this leads to ignoring his potential for constructive change, and draws the critics down the road of looking for a whole new system of political and social organization. As the old saying goes, they throw the baby out with the bath water.

In a world where there is so much to be against, we must be for some kind of governmental process. I'm for old Uncle Sam even though he sometimes doesn't do as well as he knows how. The foundations laid down in 1776 for a new nation on the North American continent are still valid; they deserve support and enlargement.

There is a national movement, begun last year and supported by a Congressional resolution, to ring bells across the land at 2:00 P.M. on July 4, re-enacting the tolling of the Liberty Bell on that same day in 1776. Let's shuck off the lethargy of our times and ring the bells in our communities as a sign of new commitment to the ideals that created America!

SHARING THOUGHTS

Members of the American Agriculturist Foundation, owners of this publication, recently met at Ithaca. While visiting with these agricultural, business, and community leaders, I experienced once more the inspiration that contact with people always seems to bring.

I have not found every church sermon inspiring, but invariably the congregation imparts some mysterious encouragement for me to take home. Some meetings have been officially dull, but without exception someone attending has shed new light on a facet of living. I can say sincerely that I have never met anyone who did not have something to teach me about human nature.

One of the privileges of my profession is to visit with and receive letters from people representing a broad spectrum of professions and opinions. Now and then I would like publicly to acknowledge my appreciation for these opportunities, and encourage you to share ideas and experiences with me.

It is ordained that we shall live upon this earth only as long as the briefest tick of the cosmic clock, and then are gone. Our lives can be immeasurably enlarged and enriched by sharing with others the hopes and fears, the successes and failures, the dreams and despair, the convictions and questions that are a part of the fabric of human experience. The wondrous alchemy of the spirit can transform into the gold of more abundant living these shared things drawn from everyday life.

HARM ON THE FARM

Have you ever picked up what was left of a 10-year old boy after a tractor had rolled on him? Or pulled a screaming little girl out of an auger conveyor — minus her foot? Remember that cold, gloomy autumn day when you attended the funeral of a neighbor who tried to clean out the husking rolls of a corn picker while it was running?

Farming doesn't have a very good accident history when compared to other hazardous occupations like mining, quarrying, and construction. A very small part of the problem is mechanical failure — mostly it's human error. Carelessness is the big killer and maimer at the farm — and on the highway.

Please remain a contributing taxpayer by being careful!

MILK AND COTTON

Dairymen thinking about supply management programs may find some guidance in the experience of cotton growers. We have been worrying about a cotton surplus for 30 years in this country and only recently Congress passed a law which subsidizes cotton three ways — to growers, exporters, and manufacturers.

After years of acreage controls, the carryover of cotton is now nearly twelve million bales — equal to more than 80 percent of the 1963 cotton crop in this nation. This surplus argues strongly that American acreage should be shrunk still further. During the late 1920's, cotton grew on 40 million acres in the United States, by 1963 on only 15 million acres.

Thirty years ago, before American cotton growers began to hold the price umbrella for foreign cotton growers, cotton production abroad totalled 11 million bales. In 1962, this foreign production had trebled to 35 million bales.

During the past 25 years, world per capita consumption of all fibers has been increasing, and over the same period world population jumped by nearly a billion people. Certainly a growth market — but we were so preoccupied with price that we let foreign cotton and synthetic fibers supply practically all the growth in the world fiber market. In the face of rising world demand, we struggled to shrink output behind a protective wall built upon a floor of price supports.

There are three dimensions to net income — price, volume sold, and cost per unit! Price is only one part of the formula, but it receives practically all the attention in legislation.

Dairymen may well ponder the history of cotton programs, and ask themselves whether dairy supply management might follow a similar path. A price pegged at all times above that determined in the market place is appealing to producers. But there are areas other than the Northeast in the country and in the world that produce dairy products; there are also other products competing for space in the consumers' stomachs.

Perhaps a legislated price floor for milk at some level around the market price for manufactured milk would be better in the long run for the dairy industry than high support prices and stringent controls on production.

OLD HOME ORCHARD

The opple orchard on our old home form
Just grieves my heart to see it die owoy;
It stood the losh of mony o winter storm
To blossom pink ond white in eorly Moy.
And I recall the hum of drowsy bees
And frogrance from the honey-scented bloom
Thot drifted with a cool, refreshing breeze
To fill odjoining fields with rore perfume.
And there were times these blooming opple trees
Thot stood os shapeless ghosts in robes of white
Were blighted by on unexpected freeze —
We'd worry on a clear, cold moonlit night!

But memories linger of fruit-loden limbs
Thot in the outumn suns turned red and gold,
To fill the borrels and boskets to the brims
With oll the gems of summer they could hold.

Blight-deadened limbs, with shreds of honging bork
Hove brought their fruitful seasons to an end;
It is as hard for them and me to port
As some long-trusted ond beloved friend.
— *J. Morsholl Porter*

RULE BY VETO

I suspect you have always believed that if your State Legislature felt strongly enough about a particular item of legislation it could pass a law over the Governor's veto. In many states this is theoretically true but practically false.

In New York State, for instance, legislation acted upon by the Legislature falls into two categories — ten-day bills or thirty-day bills. Any bill passed by the Legislature during the ten days preceding adjournment becomes a thirty-day bill, meaning that the Governor has thirty days to sign or veto it.

Ten-day bills are those passed prior to ten days before adjournment; the Governor has ten days (excluding Sundays) to sign or veto. The latter bills could theoretically be passed over a veto because the Legislature is still in session when the Governor makes his decision.

What happens in practical politics? If a Governor is informed of proposed legislation that he does not approve, he sends the word down to his legislative leaders that it should be delayed in passage until it becomes a thirty-day bill, and can then be killed by veto not subject to being overridden.

The Legislature cannot reconvene itself, therefore the issue is settled until the next regular session the following year. A bill can be passed over and over by elected representatives but never become law.

However, the Governor can — and does — reconvene the Legislature in case of emergency or if it has failed to perform to his satisfaction. This was done in New York this year, you will remember, in order to snuff out what Senator Dutton Peterson called "the Whiskey Rebellion of 1964."

The Legislature exerts veto power over the Governor by refusing to pass his legislative proposals; the Governor exerts veto power over the Legislature by refusing to sign bills passed by this body. But it looks to me as though the existing system in the Empire State stacks the deck in favor of the executive branch of government!

American Agriculturist, July, 1964

Weyerhaeuser

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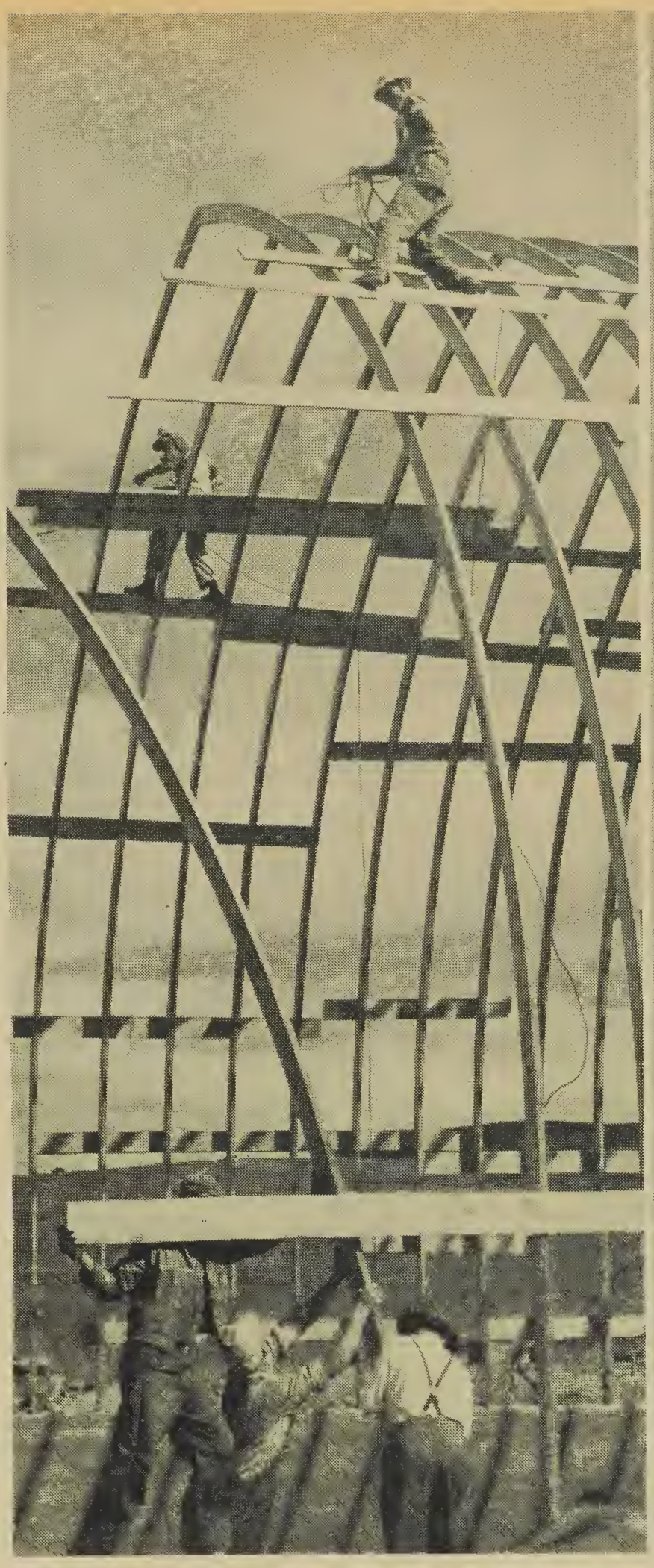
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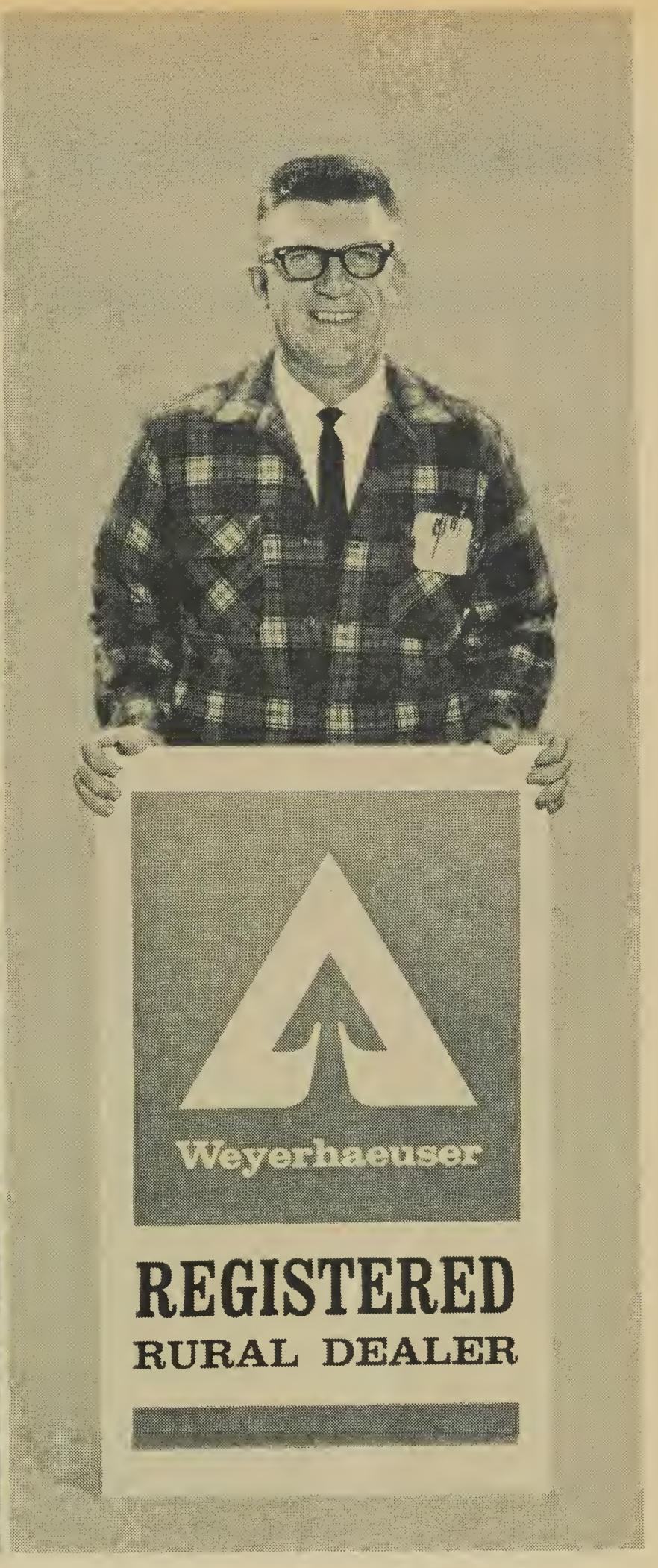
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Barneveld Turner Lbr. Co.
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Caledonia Caledonia Lbr. & Coal Co.
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"Excuse me, but where's the food section?"



SUPREME COURT DECISION

What a pity that our nation should be turning her back on God — voluntarily giving up the religious heritage that our forefathers faithfully fought and died for! Religious freedom was the foundation of our country, and this very cornerstone is being torn out.

The responsibility of religion falls now on the family and church — where perhaps it rightfully belongs. May we in the "grass roots" work diligently to rear God-fearing boys and girls who will someday be our leaders.

What would happen to the financial state of the country (and our taxes) if the government questioned spending money in other fields as they do in religion?

At school, at home, at work, or at play may our children be allowed to honor, respect, and obey openly the Deity of God. If we as a nation continue to deny God we are without hope, decaying from within. — **Mrs. David Taylor, Margaretville, New York.**

GOVERNMENT HANDOUTS

I have worked in an ASCS office for several years, as well as having lived on a farm, and I know how the farmers in this area feel about government "handouts," controls, etc. These people have won my respect, for they are, on the whole, sincere and hard-working. They use shrewd intelligence, thinking things out for themselves, rather than assimilating as true the pat phrases and viewpoints in vogue.

Most of our farmers request assistance and participate in the Federal programs not out of greed, but of necessity. They are paying taxes which support not only farm programs but other subsidizing aids, as well as the countless plans which spend our money in ways they feel unwise.

They are competing with other businessmen who are caught up in the same system, and they owe a living to their families. They fight government spending and controls through their groups, but have come to realize that staying away from our office is not adding a whole lot to that fight.

In a way, it would be like "cutting off one's nose to spite one's face." The laws are on the books, and the farmer should not be made to feel ashamed for taking advantage of them.

The shame lies at the feet of the planners, and they are those who believe that Uncle Sam can handle the affairs of the individual better than he. If the trend continues, it may be that the individual will lose his ability to think for himself.

I am going to ask that you do not use my name, as I do not wish to embarrass anyone in the Department (or lose my job, which I enjoy). I do not speak in an official capacity, but for myself, on my own time.

We read the "Agriculturist" with interest, and get a lot out of it, both my husband and I. We miss the old friends who are no longer with the magazine, but we appreciate the new contributors. — **A Reader**

FOREIGN AID

Several years ago when I was in Japan working with the Natural Resources Section of the Supreme Command, I learned about an early technical assistance program that was so successful that tangible results are evident to this day, after nearly ninety years. The program was directed by William S. Clark, president of Massachusetts Agricultural College, who was asked by the Japanese Government in 1876 to assist in the development of Hokkaido, which is the northernmost island of the country and was sparsely settled at that time.

President Clark, with the assistance of several other professors from M.A.C., established an agricultural college on Hokkaido for training students for special work in the government and with farmers, and introduced livestock and practices that were the basis for the development of an area about the size of New York State.

Today a visitor to Hokkaido will see prosperous farms much larger than those in other parts of Japan, with dairy barns, horses hitched as a team rather than in tandem, and black and white cows that are descendants of the animals introduced by Clark and his group. The Japanese still give the Clark Mission credit for the development of the agriculture, and the organization of the farms. Still more remarkable, if one listens to the language carefully he will hear American words, such as the commands for driving a team of horses, which Clark introduced because there were no similar words in Japanese.

Two things about Clark's Mission particularly impressed me. One was that the program was so effective that tangible results are still apparent after so many years. The other point is that the Japanese Government asked for the assistance and paid all the cost! This is in striking contrast to most of our present Foreign Aid projects which the United States usually initiates and pays for in full. — **Paul H. Allen, Kenoza Lake, N.Y.**

POVERTY EXPLORED

Thanks to the many readers who replied to my invitation to comment on my editorial "Poverty Explored." The response is such that we could not begin to publish them all, but here are a few excerpts from some of them:

"Your editorial Poverty Explored is just plain hoss sense. Give two men equal amounts of money and in a year's time one would have squandered his and the other increased his. The parable of the talents covers this thoroughly.

"Art Linkletter says people are funny. They are! Presently we are being bombarded by how poverty is going to be eliminated. People whose feet are not on the ground are swallowing this hook, line and sinker. They are being 'buttered up' for a letdown after politicking is over.

"This 'helping' is a fine idea when the ones involved try to contribute and are deserving thereby. But some want a free ride. That type, like taxes, will always be with us and I do not pity them, as one cannot get anything unless he contributes some effort." — **George W. Brown, North Monmouth, Maine.**

"Granted there are times, such as in a depression, when it is exceedingly hard to prosper. But if you try and stick with it you can still keep yourself from being completely poverty-stricken.

"If everything were equal, the indifferent wouldn't have to strive, and the ambitious would be discouraged from striving, because it wouldn't get him any further anyway." — **Mrs. Albert Gottiaux, Secaucus, N. J.**

"Not everyone is equal in talent or ambition. There are a great many people who do not make any effort to help themselves, and would rather be supported by the government or anyone willing to carry their responsibilities. The Good Lord said, 'The poor you will always have among you.'" — **Mrs. Joseph Collins, Hampton, Conn.**

"It is necessary to get away from the idea of welfare and concentrate on a plan by which people improve their conditions through individual initiative and hard work. My experience is that it is impossible to keep a man down who has drive, ability and initiative, regardless of the odds against him. That has made America, and it alone will make a great nation, any nation or part thereof." — **Leon Davis, So. Royalton, Vermont.**

"It is a war on educational poverty that we should wage. We must do it until women can go into the market place as skilled wage earners the same as men. You say we are emancipated. How? There is no emancipation for anyone except through education — freedom from prejudice. Until each of us is useful creatively — productively through education, there is no freedom in the real sense of the word, especially for women." — **Lucretia Emerson, Middletown, N. Y.**

"It is my belief that each person should be encouraged to do all he can to elevate himself. Those things that he cannot do himself are then the problems of the community and/or town. Those things that are too big for the town, the state should be responsible for, etc., even to the UN (although at present the U.N. doesn't seem to have the backing to solve our worst problems)." — **Haven Sanborn, Sanbornton, N. H.**

"Actually, poverty is not 'explored' now, it is as old as mankind itself. One may not believe in the legend of Adam and Eve, but he cannot deny the dramatic fact quoted in the Bible (Genesis 3:17, 18): 'Cursed be the ground for thy sake; in toil shall you eat of it all the days of thy life, and thorns and thistles it shall bring forth to you; and you shall eat the plants of the field. In the sweat of thy face shall you eat bread till you return to the ground, for dust you are and unto dust you shall return." — **J. Kleiner, Hightstown, N. J.**



WIRED FOR SOUND AND POWER

The telephone and those big electrical power entrance boxes symbolize the importance of wires to the modern farm. Instant communication and limitless power surge across the miles to serve the farm business and the farm family. Who would want to return to "the good old days" without them?

Charles Ashley, West Chazy, New York. takes a call on one of his three extension phones; this one in the eggroom of his new prefab caged layer house. In addition to his 6,740 table egg birds, Mr. Ashley has a top-producing herd, and operates a busy artificial insemination service.

MECHANIZATION MEMO

by Donald Price*

TO GET the most efficient use from farmstead mechanization, you should plan your work schedule so that you can take care of at least two jobs at one time. For instance, two silage carts allow you to feed from one while the silo unloader is filling the other. Clean the calf and bull pens during the time the gutter cleaner is running.

Most farmers feel more comfortable about preventing breakdowns if they can stay nearby when equipment is operating, but if you stand idly and watch the operation, then you are saving only your own energy — and increasing the operating cost of your farm. Modern equipment is safe and protected when installed and operated properly.

The question is asked, "Why finish chores so early, and leave two or three hours during the day with nothing to do?" Well, for one thing a good dairyman should have enough time to do some planning, record-keeping, and checking out what's new.

Mechanization Facts

A healthy, young, energetic, and hardworking man is just about equivalent in horsepower to 1/8 of a healthy, young, and stubborn mule. Two cents worth of electricity (1 kilowatt-hour) is approximately equal to an hour's worth of work by a mule. In order to save money, you would either need to hire someone — or work yourself — for wages less than one-half cent per hour. The idea of working for one-half cent per hour and being referred to as one-eighth of a mule is enough to cause any man to consider mechanizing.

All the materials handling equipment in the world will not make you a successful operator, though, unless you take advantage of the time saved to do a better job in planning and managing your enterprise, or to increase your capacity. Assuming that the hourly wage rate is $1.50 per hour, Purdue University figures show that saving 60 minutes of a man's time per day justifies the investment of $3,700 in equipment used the year around. Saving 30 minutes justifies $1,750 worth of machinery.

Your quickest and best source of information about mechanization is visiting other farmers using labor-saving equipment. Look over each operation you visit, and then apply the information to your own operation.

Overloading is probably the number one maintenance problem with farmstead equipment, and this is often the responsibility of the dealer rather than the farmer. Parts of the machine will be structurally strong enough to take the additional load, but some parts may not be.

Electric motors almost always take the brunt of overloading. A motor may be big enough for a given job, but if the wiring circuit is overloaded, then voltage drop will in turn overload the motor. If you are suspicious that a circuit is overloaded (constant fuse blowing, lights dim, etc.), ask your power company representative to check your service.

Most machines around the farmstead require periodic greasing, oiling, and adjustments. A bearing without grease will last just about as long as the sole of your shoes if you were to drag your feet to stop your automobile. Loose belts or chains cause a constant vibration that eventually raises hob with the whole machine.

One farmer I know about put a large drum of used oil over his barn cleaner chain to keep the chain well lubricated. The barn cleaner was 12 years old, had caused very few problems, and was not badly worn as a result of good care. Electric motors are sometimes so covered with dust and dirt that they need a good "washing behind the ears." Motors laboring under these conditions will run hot, a good way to shorten their life — or even burn up the barn.

*Extension Agricultural Engineer, Cornell University

DON'T FORGET!

Farm Materials Handling Exhibition on August 12 and 13 at the farm of George and John Humphrey, New Hartford, New York.

THE BEST MOVE
ELECTRIC WATER HEATING



"THE MOST CAREFREE AND CONVENIENT WAY OF HEATING WATER IN THE MILK HOUSE"

Says Dairyman Raymond Hall, Mount Vernon, Maine, of electric water heating.

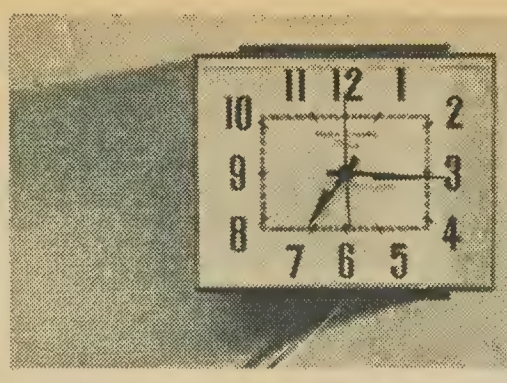
No doubt about it, a plentiful supply of hot water is a necessity on today's dairy farm. "Running a profitable, modern dairy farm, with modern dairy equipment, calls for high-level sanitation and cleanliness. This means we need plenty of hot water," says Raymond Hall. "And we get it automatically, electrically, without setting aside extra space for fuel storage. Our electric heater hasn't let us down yet."

Ask your power company rural representative or appliance dealer to advise you on the water heater best suited to your needs — today.

FARM GROUP
Electric Council of New England

FARM BETTER ELECTRICALLY

(A regional association of investor-owned light and power companies.) Names available on request.



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

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Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
Olean	WHDL	1450 kc.			

Northeast Radio Network

Ithaca, New York



THE CASE FOR PESTICIDES

By Amos Kirby
New Jersey Editor

One of the newest publications of the New Jersey College of Agriculture is called "Food Facts from Rutgers." In its May issue it tells the story on pesticides as viewed from the Extension Service and other affiliated departments at Rutgers; from an agricultural viewpoint, it answers the question, "Are pesticides misused by farmers?"

In addition, it adds this statement from the Journal of the American Medical Association of July 28, 1962:

"There is no confirmed record of clinical effect from eating food treated with pesticides according to approved agricultural practices."

The report goes on to state that biological and genetic controls have long been studied and that progress is being made in both fields. It lists six instances where New Jersey crops have been wiped out because there was no known pesticide to control farm and orchard pests.

In 1920, the oriental fruit moth wiped out the quince industry in the Morristown and Haddonfield areas; in 1919 the pepper maggot all but wiped out the pepper crop grown in the Amboy area — today, known pesticides control this pest.

Hunterdon County folks recall when that county was noted for its peaches as much as it is now known for its poultry industry. Hunterdon lost its peach industry due to the San Jose' scale.

Bergen County celery growers lost their crops through the carrot weevil; driving through parts of Burlington, Camden, and Gloucester counties even today one can find apple orchards deserted because there was no known control of the codling moth. One could go on, but this is enough to show that pesticides have saved important segments of agriculture — and other segments have been lost because of the lack of them.

All Benefit

The farmland assessment bill was signed by Governor Hughes on May 15. We hear of some fantastic taxes being paid on land that is being used exclusively for farming. There are instances where owners are paying more than $100 per year in taxes alone. The average in New Jersey, according to the State Department of Agriculture, is $11 per acre, compared with the national average of $1.36 per acre!

In a statement made after the bill had been signed, Secretary of Agriculture Phillip Alampi said: "The farmer is not the only one who will benefit from the new tax program. It will also help to assure some open spaces being preserved for all citizens and their children."

Here and There

We attended a dinner meeting recently where some important light was thrown on the Green Acre program. The speaker was Robert A. Roe, State Commissioner of Conservation and Development, and he was speaking before the New Jersey Agricultural Society.

Mr. Roe stated that the policy of the Green Acre Program is that if land is acquired under this program it may be leased back and continue to be used for agricultural purposes. This has been done on some cranberry lands adjacent to the Wharton Tract (which has been acquired for its water resources). Former owners will continue to produce cranberries during their lifetime — and the arrangement might be extended longer if the land remains in the same family.

Farm Trucks

The $1 fee for farm tractor and farm truck licenses has been under fire in recent months. C. H. Fields, Secretary of the Farm Bureau, reports that they have been able to secure a restoration of the $1 fee on tractors.

The farm truck license issue came to a head when a Cape May farmer under contract with the City of Vineland was denied the right to use the farm tag on his garbage truck. It was argued by the Farm Bureau and the Livestock Association in court, and a decision made in favor of the farmer, Lester Germanio, in that he was hauling feed for his livestock.

Labor — Southern New Jersey asparagus growers have faced a shortage of harvest hands. Many growers who have in the past depended on "walk-ins" to cut asparagus found at the last minute that few of this group showed up at the usual time.

Joseph Garofalo, manager of the Glassboro (Labor Camp) Service Association, the agency that imports workers from Puerto Rico, says that while they were having difficulty in getting workers as fast as needed, the number brought in this year is running ahead of 1963.

Investigation — The Federal government is taking a close look at the practices of New Jersey processors in establishing contract prices on canning crops. When the processors announced prices that represented an 8 percent cut in asparagus prices, the Farm Bureau stepped in and called for an investigation as part of the Federal survey recently ordered on retail food methods of fixing prices. It was felt that the reduction was not warranted in view of the added wages being paid the Puerto Rican harvest hands.

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of a vital
new force in
Northeastern
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Apple quality, here being tested, is the reason for regular CA and Tectrol storages.

TECTROL FRUIT STORAGE

by Conan Mooney

Fruit growers are going to hear more and more about Tectrol, a recently-developed machine for storing apples. The word Tectrol stands for "total environmental control." In this system, an externally-generated atmosphere is forced into an ordinary refrigerated storage room, turning it into a modified-controlled atmosphere room. The artificial atmosphere is maintained because of the constant pressure exerted by the gas as it flows into the room.

Controlled atmosphere (CA) storage is a system for storing fresh fruit in which the fruit itself gives a longer storage life through its own respiration. No machinery is required other than that used for refrigerating the room.

There are two major drawbacks to regular CA storage; the high cost of building completely gas-tight rooms, and the necessity for running daily maintenance checks on these rooms. Theoretically, Tectrol eliminates both of these disadvantages.

Cost Figures

Figures compiled by Dr. G. D. Blanpied of Cornell University show that it costs $2.28 a box to build and equip a regular CA storage operation as opposed to $1.62 a box for Tectrol. On a 25,000 box operation this amounts to a saving of around $16,000 in favor of Tectrol. The equipment rental charge for Tectrol at the time these figures were compiled was 20 cents per bushel. At the moment, Tectrol is available only on a rental basis.

This obvious advantage is somewhat offset, however, by a larger annual storage cost for the new system. Dr. Blanpied's figures show that the annual storage cost per box of apples under the Tectrol system is 47 cents in contrast to 39 cents per box for regular CA storage. Although Tectrol is less expensive on an initial investment basis, regular CA has proved to be cheaper on an annual cost basis when building and construction costs are spread over a period of years.

Another stated advantage of the Tectrol system is that of allowing the storage operator to open and close his rooms whenever he wishes throughout the storage season, but there is a great deal of uncertainty as to whether there is any real advantage in this. All fruit sold in New York State as "CA stored" must by law undergo a 90-day sealed room requirement, so any advantage that did come would not present itself until later in the storage season, at a time when other CA room operators might also be opening their rooms.

The reason why Tectrol-controlled rooms can be opened at any time in the storage season is the rapid drop in oxygen obtained under this system. In ordinary CA rooms it takes from ten days to two weeks for fruit respiration to get the oxygen down to the desired 2 to 3 percent level. This is not fast enough to make it practical to open and close CA rooms throughout the storage season.

The same 2 to 3 percent can be obtained with Tectrol in from 1 to 3 days, depending upon how large a generator is used and on how much the room leaks. Theoretically, Tectrol can be operated in regular storage rooms, but in actual practice it has been found that some degree of gas-proofing of the rooms is necessary to get the highest level of performance from the system.

Tectrol was first introduced in Michigan during the 1961-62 storage season. Research in that year and in subsequent storage seasons has shown Tectrol to be superior to ordinary refrigeration storage, and equal to, but not better than regular CA storage. When making the comparison, the fruit was inspected as to its appearance, firmness, taste and susceptibility to certain disorders such as core browning and scald.

Future Outlook

Tectrol is a product of the Tectrol Division of Whirlpool Corporation, St. Joseph, Michigan, under the direction of Dr. Karakian Bedrosian. I asked Dr. Bedrosian about Tectrol's future and if the system would ever be offered for sale. He had this to say: "We shall offer for sale the Tectrol generator when we believe it will not become obsolete immediately (as our 1962 model did) and when it can be easily and reliably operated by the grower."

He went on to say that Tectrol is out of the experimental stage as far as apple storage is concerned, and that the Whirlpool Corporation is experimenting on a number of other product applications. "We have conducted successful field trials on pears (Bartletts and d'Anjous), apricots, and sweet cherries, and shortly expect

(Continued on page 25)



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Gayway Farm Notes

by HAROLD HAWLEY

"GRANDMOTHER ROSE"

On Memorial Day the first of our "grandmother roses" bloomed. We cherish one rose bush we have above the others not only for its beauty but for sentimental reasons.

In 1830, a young German bride left home and came to this country with her new husband. This girl was Doris' great-great-grandmother. She brought a rose bush from the family garden in Germany; she lived and reared her family in Illinois.

When her daughter married and went to the new and wild territory of Nebraska, a slip from the rose bush went along. It must have been a rugged plant to have survived the change from Germany to Illinois to Nebraska. Doris' mother took a slip of it to her new home in Wyoming, where it blooms wonderfully, thanks to tender loving care and the application of much water.

Of course a slip came "back East" with us after Doris married "that Yankee fellow." It has proved more winter-hardy than some of the rather high-priced bushes we occasionally buy from the nurseries. So, you see, our "grandmother rose" has come quite a way, has brought joy to many, and shows no sign of not being fully capable of packing up and moving again if some day another bride sees fit to make it a part of her new home.

Strength and Vitality

If it could but talk! It was there when the boatload of German immigrants sailed into the New York harbor. It became "naturalized" and Americanized as fast as any of them. It knew the strength and vitality and promise of virgin soil in three states. Surely it heard the sound of marching feet as the sons marched off to the Civil War and two World Wars — and it comforted some mothers when some of them failed to return. It knew about the covered wagon — didn't it ride in one to Nebraska?

Blizzards, drought, dust, and flood it has shared with those who loved it. The march of this country west, the "hoss tradin' and racin'," the breaking of new soil, the strawberry festival, the weddings — and yes, the funerals, too. It's been there for them all.

It remembers the days of shucking corn by hand, of the neighborhood barn raisings, of even a log cabin and a soddy hut. It's seen good times, too, when World War I brought two dollar wheat and twenty dollar hogs, new jewelry and dresses for the women folks, and new barns and more land.

Possibly it hasn't forgotten the belt tightening when dust and drought and depression prices ganged up. Our rose bush recalls the first model T and the impossible mud roads of Nebraska. It thrived by the now-gone windmill that pumped the family's water.

The first school meeting held in that old Illinois township was within earshot of our rose; the country school in Nebraska was just down the road a piece. The uranium refinery is just across the Wind River from it in Wyoming.

For all this, our rose must have been perplexed when a daughter "went off to college." But the change and progress which it has seen ever since it arrived in this country must have prepared it for almost anything.

If it could but talk our rose bush could tell us that by their courage and strength and sweat and faith, its owners have wrought a great nation on this land.

SEEDINGS

Last year's exceptionally heavy crops of winter wheat and barley, with the badly lodged straw coupled with the dry weather, took a toll of our seedings. One field was so spotty last fall that we plowed under the barley stubble and what seeding there was and sowed wheat. This spring we had another field nitrated and let the volunteer wheat and the seeding make a good growth, then plowed it all down to make way for a corn crop.

A third field looks pretty good. The fourth and most important situation involved a 35-acre patch that was to have been DuPuits alfalfa for pasture. Perhaps if the good spots were all together there would be a dozen acres of real good seeding; the rest is thin or nothing. In desperation, we broadcast another fifteen pounds of seed per acre over the whole thing in early April.

By May 20 the volunteer barley and the alfalfa that came from the first seeding were up to good size, so we turned the cows in. The plan was to graze it off pretty good, then to keep them out of it until the new seeding had made a good growth. By June 1 it was 4 to 5 inches high and pretty good all over; here is where for once the gamble paid off.

On our high lime soil, alfalfa seeding failures are a new experience. This is why we have been so unsure of ourselves in trying to re-seed this field. We have decided not to seed in winter barley in the future. If we don't seed, we can fertilize and nitrate it heavily and go for a maximum amount of good cow feed per acre even though it lodges — which it probably will. To seed in

(Continued on next page)

something as thick as it gets, and with the likelihood of lodging, is asking for trouble.

SEEDING

By limiting seeding to wheat, we will have to leave hay down 3 years instead of 2. As long as we fertilized the hay fields after the first cutting was taken off, I can't see any difference in the stand the second or the third year. We continue to wonder, however, if there isn't room for more research on the place of nitrogen in the fertilization program for hay and pasture fields (legumes, that is).

One year we got our signals crossed and had 70 pounds N/acre applied to a field of DuPuits alfalfa we weren't going to plow. Sure, the first cut was rank as sweet clover; the next two cuts were terrific — and no grass crowded it out, either. We left that stand down another year and it continued thick and good. Makes one wonder if nitrogen and legumes are really incompatible?

Several times we have used 5-20-20 instead of 0-20-20 on hay fields, and are about sold on this as standard procedure under our conditions. Perhaps the College of Agriculture is right about not using nitrogen on legumes for most situations. On the other hand, many of these new alfalfas are more vigorous than some we used to have, and I doubt that competition from grass is as much to be feared as we once thought. Actually, for home use I would welcome a little grass in the hay.

CONSUMER IS RIGHT

We are having a pasture management problem on some land we use for heifers. About 40 acres is a pure stand of bromegrass which we try to feed pretty well with manure, nitrogen, and complete fertilizer. Another part of the pasture adjoining the bromegrass has been in native grasses for years — blue grass, orchard, etc. It always furnished good feed when it was pastured separately. Now with the fences removed the heifers have a choice where they will graze. You guessed it — not on the native grasses. As a consequence the orchard grass goes to seed, tree sprouts and goldenrod are coming in, and soon that pasture won't carry half what it once did.

It seems we have two choices. Fence them separately and rotate the two parts, or clip the old field over, fertilize it, and hope. Perhaps we may have to seed it too. Anyway, we aim to try to bring up its appetite appeal comparable to that of the bromegrass portion.

A CASE FOR SHERLOCK

For the past 6 weeks we have been losing a little wheat every day, and there has been no trace of what took it or where it went. It's had us really puzzled. Maybe we had best start at the beginning.

Last fall we sowed some wheat after taking off silage corn. This spring when the snow went off a small strip along the creek was bare. I assumed that either it had winter-killed or muskrats had eaten it off and killed the plants. Well, all spring the strip has seemed to grow until it is now about 100 yards long and 12 feet wide. The grass seeding which is so fine in the rest of the field is either gone or sick in this strip. There are almost no weeds — in short, this strip is as bare as a billiard ball.

I've been examining it periodically, trying to figure out what is going on here. Finally, when discussing it with my good friend and neighbor, Harold Sturgis, the truth came out. He asked if I had maybe sprayed or got on too much Atrazine or something. Well, right then I knew the answer.

Last spring when we planted the corn we used the new band applicators on the corn planter to apply granular Atrazine. We started at the road and went along the creek. After a little way I thought the Atrazine was going on pretty fast, so reduced the rate. After a little more, we cut it again. The second change made it about right. The extra heavy dosage put on at first (probably several times the recommended rate) killed the wheat. The next dosage killed it more slowly. Hence the progressive loss of wheat and the growth of the bare spot.

It's certainly no fault of a herbicide or pesticide or anything else if someone puts it on that much too heavy; there was no carry-over on the rest of the field. Anyway, I'm pretty relieved to find out it was that rather than some new disease or insect marching down the row and taking all as it went.

EASTERN MEETS

Howard Merrill of Walton, New York, was elected president of Eastern Milk Producers' Cooperative Association at the recent annual convention. Named vice-president was Paul Walizer, Bellefonte, Pennsylvania. Floyd Kwiatkowski, Owego, New York, was elected secretary, and Myron Hawkins, Newport, New York, was re-elected treasurer.

At the annual dinner, participants included Miss Sue Ann Godderidge of Smithfield, Utah, American Dairy Princess; Colonel Jim Healey, Albany, after-dinner speaker; members of the 4-H judging team from New York — James Hoag, Donald Bossard, Carl Goodwin, and Scott Cristman; and Professor Dennis Hartman, State College of Agriculture, coach of the team.

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Richard Tannsey's liquid manure spreading rig in action.

Liquid MANURE HANDLING

by Robert Cudworth

Here's a report on some northeastern dairymen who have made the move to handling manure through a hose.

FOUR NORTHEASTERN DAIRYMEN who handle manure by liquid systems believe there are king-size advantages to moving and disposing of manure in this manner.

Richard Tannsey of Oxford, New York, likes the more rapid fertilizer action, as well as the faster, easier handling. Edmund Wachenheimer, Verbank, New York, likes the fact he can go as much as two months without spreading manure if his work load is heavy. Ralph Bowerman, Victor, New York, appreciates the speed with which he can clean the tie stall pole barn, holding and feeding areas for his 100 milkers. Derick Webb, Shelburne, Vermont, lists easy disposal, savings in labor and purchased fertilizer costs.

All agree there must be plenty of water and that the manure must never be allowed to harden. All have storage pits or tanks, and tank-type spreaders, but otherwise their handling methods differ considerably.

Ideas From Germany

Richard Tannsey's liquid manure system has been in use for three years, and was put in at the suggestion of his father-in-law, Otto Zimmerman, who had seen manure handled by liquid means in Germany. Much of the system's equipment was made on the farm; Otto reports the biggest problem has been the agitator.

Tannsey's young sons help with the cleaning. One of their chores is to hose down the gutters with water so the manure can flow into the pit at one end of the stanchion barn.

The 10-feet-deep pit is 36 feet by 10 feet in size, and will hold the manure from the 30 milkers for at least a month. Tannsey points out that in bad weather it is a real advantage to not have to haul manure every day.

Hay Problem

Matted hay is the main problem for easy flowing of liquid manure from the pit. He has tried using chopped hay for bedding, but when it too clogged up the system Tannsey shifted to sawdust. He runs plenty of water into the pit — an estimated 50 percent of the total volume.

An agitator operated by a reduction gear has been adapted to keep the manure stirred up, but has not always worked well. So a shaft running from the tractor was put into service as an alternate means. Otto plans to build a cross arm paddle that will hitch onto the shaft and provide more agitation.

Manure runs by gravity flow through a 6-inch pipe from the pit to an outlet house some 100 yards away. Elevation drop is considerable and the pressure is heavy.

When the outlet pipe is opened, the 500 gallon spreader tank can be filled with liquid manure in about five whooshing seconds. Tannsey made his tank from a 500 gallon sanitation tank, put it on wheels, and equipped it with gear box and homemade spinner disk.

The spinner disperses the liquid manure well enough so there are no clumps, and he feels this promotes faster fertilizer action. He can put it on hay right after first cutting, and not worry about manure showing up in baled second cutting.

Although he admits "a few bugs" in the system yet, one reason Otto went to his liquid manure system was because it was cheaper than buying a barn cleaner. He feels his choice was a wise one.

Used Six Years

The Wachenheimer family has used a liquid system for six years. Edmund's father, the late Joseph Wachenheimer, patterned their system after those he had seen and used in their native Germany before coming here in 1938. This system is tied in with the gutter cleaner, and for five winter months each year the manure is emptied into a spreader and handled by conventional means.

But for the other seven months the gutter cleaner empties into an outside holding pit. This covered pit is 8 feet deep, 32 feet long and 16 feet wide, and holds about 30,000 gallons. It can handle the manure from the 50 milkers for two months without being emptied.

Pipes have been laid so that water can empty into the gutter to help the flow of manure to the pit. An additional trough has been rigged to divert rain water into it when desirable.

The pit is constructed of concrete that is nine inches thick on the top and about twelve inches on the side walls. The concrete top is reinforced with iron rods and an I-Beam. Two sets of agitator paddles, powered by a farm tractor, are used to keep the manure stirred and from getting hard.

Wachenheimer has two ways of emptying manure into his spreader tank. One is by natural gravity

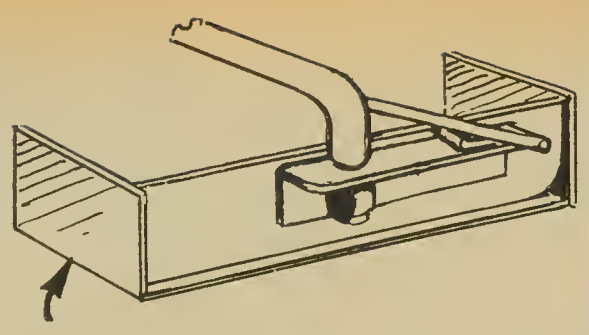


Edmund Wachenheimer, getting the spreader tank ready for use, points at the agitator inside the tank.

flow to the spreader, since the barn is built on high ground and a discharge flow pipe was built into the pit. The other — the most often used — is by use of a rotary pump.

For spreading he uses an 800 gallon all-purpose tank imported from Germany six years ago at a cost of $1,000, including freight. Controlled from the tractor, the tank has an agitator inside that keeps the manure from settling. A paddle wheel type spinner on the back spreads in a pattern to the rear that covers the wheel track on the right and flares out for several feet on the left.

Wachenheimer uses the liquid system only during his pasture season when he is not feeding hay in the barn.



The Bowermans welded these side rails onto the manure scoop so it could draw bigger loads.

This 1,100 gallon tank at the Bowerman farm has a tilted spinner disk on the rear.



SHELBURNE FARMS SYSTEM

Derick Webb, manager of Shelburne Farms, at Shelburne, Vermont, reports:

"We have a U-shaped loose housing setup for about 125 cows which we have been operating since 1952. Two years ago we put a round steel tank at the manure pit end of our feeding alley and paved yard, installed a trench from the exit door of the milking parlor down the length of the feed alley to this tank, and connected the tank and the beginning of this trench with used four-inch steel pipe. A 20 h.p. submersible pump is suspended in the tank.

"Manure is spread on the field by a used dump truck on which is mounted a steel spreading tank controlled by lift of the dump truck body. Obvious requirements of the system are adequate power and a very generous water supply.

"As a result of our experience during the past year-and-a-half we are convinced that a liquid manure system offers many advantages, not the least of which are efficient and easy disposal, a substantial saving in labor, and an estimated substantial saving in required purchases of potash."

Here are some of the specific mechanical details of this system:

Accumulator tank:

140-ft. circumference x 10 ft. deep; ¼-in. mild steel plate furnished as 60" x 120" x ¼", welded; ribs (top, center, bottom) 3" x 3" x ¼" angle, rolled to tank radius, welded.

Bottom: Clay, slope about 7" on 10' from pump location to opposite side.

Cover: Wood construction; 2" creosoted plank on joist and beam, scrap piling columns; designed for 8,000 ft. lb. point impact loading.

Capacity: Total liquid volume, 8½-ft. depth equivalent; usable storage, 6½ ft. = 76,000 gallons.

Design Factor: 25 gallons per day per cow, 140 head = 21 days storage in the usable volume.

Pump: Fairbanks-Morse suspended, submerged, non-clog, 4-inch sewage pump, with 20 hp, 3-phase, 208v., 1750 rpm motor; rated 800 gpm at 50 ft. head.

Yard Inlet:

12" x 60" grated manhole connected to preformed 16-gauge mild steel chute.

Pressure Piping:

4" steel pipe, with 4" diaphram valves.

Electrical:

Supply: 3-phase, 208v., through 60 amp. main switch.

Wiring: 3-wire, 4-gauge Romex, main switch to motor control switch; 3-wire, 6-gauge, unarmored underground cable, control switch to starter and motor. (Note that wire size was deliberately selected to provide reduced voltage starting, and fusing selected so that wiring is protected and that running load of motor must be supervised at 55 amp. as a part of pump operation.)

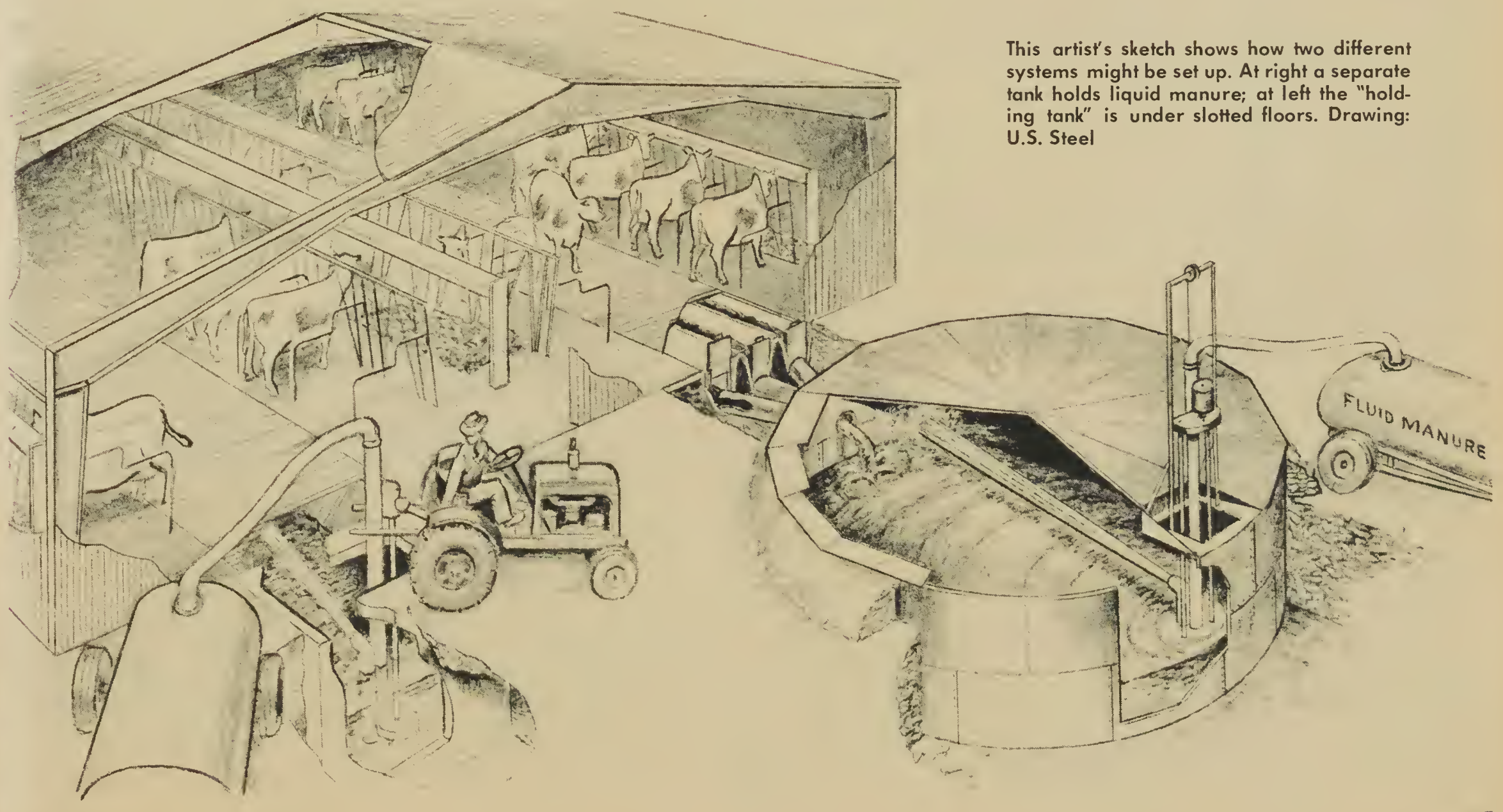
Water Supply:

Farm system, through 1¼" copper to distribution and hoses for cleaning and addition; unregulated pressure, 85 psi. static pressure.

Field Spreading Tank:

Tank: 6'6" x 10' x 2½' welded, 16-gauge mild steel on unitized frame of 2½" x 2½" x ¼" angle, and 4" channel; hinged 8" x 18" discharge valve at rear, controlled by lift of truck dump body. Capacity, 1300 gallons.

Truck: IH-180, 4-yd. dump, with single 17.00 x 20 traction rear tires. Payload 11,500-12,000 lbs., gross vehicle weight around 21,000 lbs.



This artist's sketch shows how two different systems might be set up. At right a separate tank holds liquid manure; at left the "holding tank" is under slotted floors. Drawing: U.S. Steel

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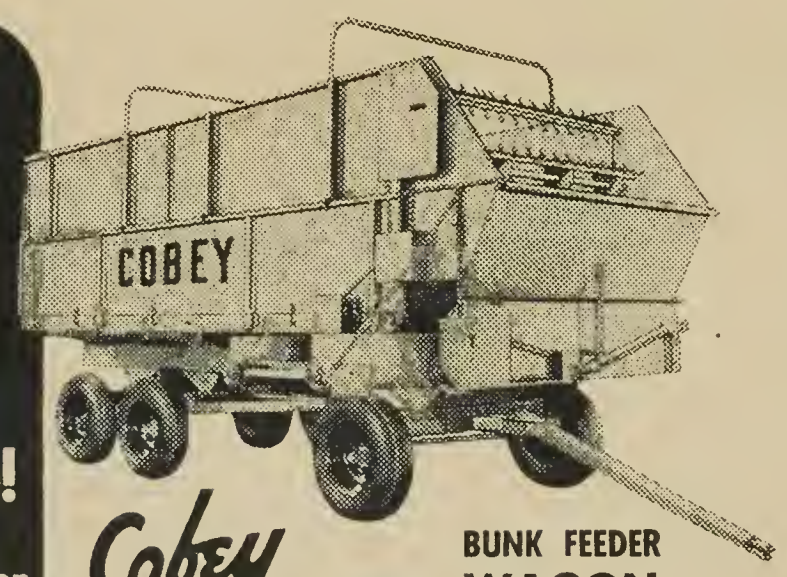
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FARM DOLLAR GUIDE

ANY WHEAT GROWER, whether or not he agrees to participate in government wheat program, can sell his entire production to anyone, at any time, and at such price as he can get. Cooperators with program get price support loans, marketing certificates worth 70 cents per bushel, and acreage diversion payments.

PURCHASES OF BEEF by USDA in high gear, attempting to bolster prices. Big push on to expand export market to Europe by several hundred million pounds. Profit problems likely for a time in the old corral, though.

HAYLAGE AND HIGH-MOISTURE CORN are major items for feeding dairy cattle in Michigan, Wisconsin, Illinois, Indiana and Ohio. So reports Agway specialist Charles Chance after a recent trip to those states. Haylage at 45 to 50 percent moisture, corn 25 to 30 percent. Most farmers put high-moisture shelled corn through a roller before feeding.

REDUCE DROPPINGS IN FREE STALLS by putting a 2 x 4 at the top of wooden stall so it touches the neck just ahead of the withers when the cow stands. If using a steel partition, weld on a steel pipe at same spot. This forces cow back when she gets up, also discourages her from lying down so far forward in stall that she has trouble "rocking" forward to get up.

INSECTICIDE RESIDUES IN MILK are still causing problems. Heptachlor to control alfalfa weevil is the latest offender, has resulted in some Maryland dairymen being banned from delivering milk. Remember that it takes time for either DDT or heptachlor to "clear up" once it gets into the body tissue of a cow.

USED BULK MILK TANKS may not be approved for your market. Check with your milk company fieldman or health inspector before you buy. Remember that a tank when reinstalled must meet the current requirements for a new tank.

NEW U.S. STANDARDS FOR PROCESSING TOMATOES have just been issued by USDA; they'll give cannery tomato growers and processors more accurate grading. More than a million tons of U. S. tomatoes are paid for each year on the basis of grades.

FERTILIZING CORN has a new wrinkle - "feed and weed" in one application of liquid nitrogen combined with an herbicide. It is applied pre-emergence, after corn is 15" high (using drop nozzles), or a combination of pre and post-emergence.

PROCESSING APPLE MARKET for 1964 looks favorable. Stocks of canned fruit down from year earlier, as are total fruit and berry frozen stocks. Freeze in Southeast will heavily reduce peach pack in that area.

A NEW HERBICIDE FOR POTATOES has been cleared by the USDA. It is diphenamid, used pre-emergence.

NITROGEN SIDEDRESSING OF CORN need not be applied close to the rows. In good soil, roots of knee-high corn rows meet between rows, and go from 6 inches to 15 inches deep.

AA Livestock Mart



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ARTIFICIAL BREEDING—Technicians. Are you interested in a position with the fastest growing A.I. Organization in the U.S.? Several choice locations are still available. Write to—Curtiss Breeding Service, Inc., Danny Weaver, District Manager, Little York, N. Y.

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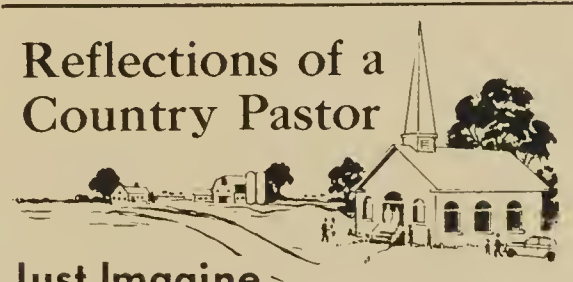
The Song of the Lazy Farmer



My neighbor's awful peeved at me, he'd be just tickled pink to see me catch a cold with throat so sore that I could not talk any more. Whene'er we have a meeting down at the schoolhouse or in our town, poor neighbor always is the one who has to take the chair and run the arguments we always have and try to spread a little salve. He likes to keep things running smooth, with all discussion in the groove, by calling time if talk's too long or if the language gets too strong; he wants to get the business o'er and rush back home to work some more.

Such tactics are a pain to me, they violate free speech, by gee! So I get mad when that young pup wants me to sit down and shut up. I've always got some things to say to help decide the better way; I often take a half an hour to use my public speaking power, and though it makes my neighbor fuss, I sometimes wave my arms and cuss. It surely ain't right to decide a thing if there is just one side, so I will let the chairman scowl until I've finished with my howl. Besides, if we adjourn too soon, I'll have to work this afternoon.

Reflections of a Country Pastor



Just Imagine

WHERE DO YOU get your ideas? Man is a thinker; his mind receives the knowledge coming into it through the five senses. He judges, compares, chooses, and uses this mental information. This much is pretty generally accepted.

But man also visualizes, foresees, generates ideas; uses what we often smilingly call "imagination." Some call it a creative mind. There are people who make something entirely new out of a set of well-known facts or ordinary materials. They see in an ordinary situation what the average person does not visualize.

For example, we are told that man enlarged his thumb and forefinger with metal and invented the vise; he strengthened and lengthened his arm and fist and created a sledge hammer; he took the rolling wheel and brought into being new power through gears and bearings; he harnessed fire to greater power through the inner combustion engine!

"Imagineering," as one author calls it, has brought forth many improvements. The shrinking collar band once caused much profanity — until a shirt manufacturer whose first name was Sanford imagined and invented a process reducing shrinkage to a small percentage. His firm called the process "sanforizing" — and the senior partner declared that it produced several million a year in profits and royalties.

Apply this same process to life. Let the Spirit of the Eternal awaken and fire your creative powers to improve life and all human relations! — Arthur Moody

STAMPS & COINS

ATTENTION STAMP COLLECTORS — The "Delaware Valley Stamp Exchange Club" is open for membership. For full details write: Geo. W. Lamborne, 265 Nassau Ave., Paulsboro, New Jersey, 08066.

SURPRISE PACKAGE of U.S. and foreign postage stamps 50¢. With approvals. Plauswa Stamp Company, RFD #4, Concord, N.H.

TRAVEL

ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 367, Ithaca, N.Y. 14851.

WANTED TO BUY

WANTED — Old books, letters, magazines. Skutel, Box 265, Southport, Conn.

WANTED: Used milking parlors and parlor equipment. Varney, Derby, Vt.

WANTED: Early auto or parts, any condition. Peritz, 4350—165 St., Flushing, N.Y.

WOMEN'S INTEREST

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3605 South 15th, Minneapolis 7, Minnesota.

UNBREAKABLE PLASTIC FREEZER CONTAINERS. Square pints, $9.95 per 100; quarts $14.95 per 100; postpaid. Sample pint, 25¢. Oxboro Heath Company, Box 7097N, Minneapolis, Minnesota 55411.

QUILTPATCHES — 200 $1.00. Buttons 800 $1.00. Catalogue, Schaefer, Drummondville, Quebec.

WALLPAPER SALE—Final clearance 1964 patterns. Write for your free catalog at once. Sensational savings. We pay postage. Burlington Trading Post, 1800 Burlington, North Kansas City, Missouri.

HOMEMADE QUILTS Many designs, colors, sizes, $8.00 up. Write Mrs. Jonas Copenheaver, R3, Hanover, Pennsylvania.

FREE NEEDLECRAFT CATALOG! Embroidery, Knitting, New Ideas! Merribee, Dept. 677, 2727 West 7th Street, Fort Worth, Texas.

WOOL

SEND WOOL TO US for beautiful, warm blankets. Free literature. West Texas Woolen Mills, 443 Main, Eldorado, Texas.

Dates to Remember

July 1 - First day to file Federal Gas Tax Refund application for 12-month period ending June 30, '64.

July 2 - New York State Association of Teachers of Agriculture and Professional Improvement Conference of Agricultural Teachers, Agricultural and Technical Institute, Farmingdale, N.Y.

July 7-8 - Poultrymen's Get-Together, Cornell University, Ithaca, N.Y.

July 9 - Annual meeting Massachusetts Beef Cattle Improvement Association, University of Massachusetts, Amherst.

July 10-11 - Maine Broiler Festival, City Park, Belfast, Maine.

July 11 - New York Angus Association Field Day, Meadow Lane Farm, North Salem, N.Y.

July 17 - New England Sheep and Wool Growers' Association annual Ram and Ewe Sale, Exposition Grounds, West Springfield, Massachusetts.

July 18 - Hereford Association Field Day, Lockport, N.Y.

July 19-25 - National Farm Safety Week.

July 29 - State Plowing Championships, Daniel Rumler Farm, seven miles west of Chambersburg, Pa.

July 29 - Dedication of Hudson Valley Research Laboratory, Geneva Experiment Station.

August 1 - Maine State Dairy Show, Windsor Fairgrounds, Maine.

August 1 - Windham County Farmers Field Day, Wheeler Farm, Wilmington, Vt.

The beginning of a new and vital force
in Northeastern Agriculture



Agway

GLF Quality

EASTERN STATES COOPERATIVE ®

Created by the united farmer-members of Eastern States Farmers' Exchange and Cooperative GLF Exchange

Together to serve you better

The familiar seals of Eastern States and GLF: each the symbol of almost a half century of leadership in dependable commodities and services for the farm.

From this proud heritage springs a vital new force in Northeastern agriculture—Agway.

Agway Inc. is the successor to Eastern States Farmers' Exchange, Inc. and Cooperative GLF Exchange, Inc. so ordered by the overwhelming vote of farmer-members present at respective meetings in February. The official date of merger: July 1, 1964.

With Agway begins an era of fresh opportunity and responsibility.

The Partnership

Agway is the union of resources to provide you with still more efficient purchasing and greater marketing strength.

Alone, your cooperatives were restricted to a rate of growth insufficient to meet the rapidly changing needs of today's farm. The job is more complex than ever before because your needs are more complex.

Production facilities in Agway will be strengthened, duplication eliminated. Research will be consolidated and accelerated, services expanded, products improved.

Agway will be flexible, aggressive, alert, a pace-setter for new products and new services.

The Scope

Agway stretches from Maine to Chesapeake Bay, from the far eastern tip of Long Island out to Lake Erie. Dairyland, fruitland, gardenland, eggland—where the Golden Horseshoe market sweeps from Portland to Pittsburgh and back to Baltimore and the teeming Atlantic coast.

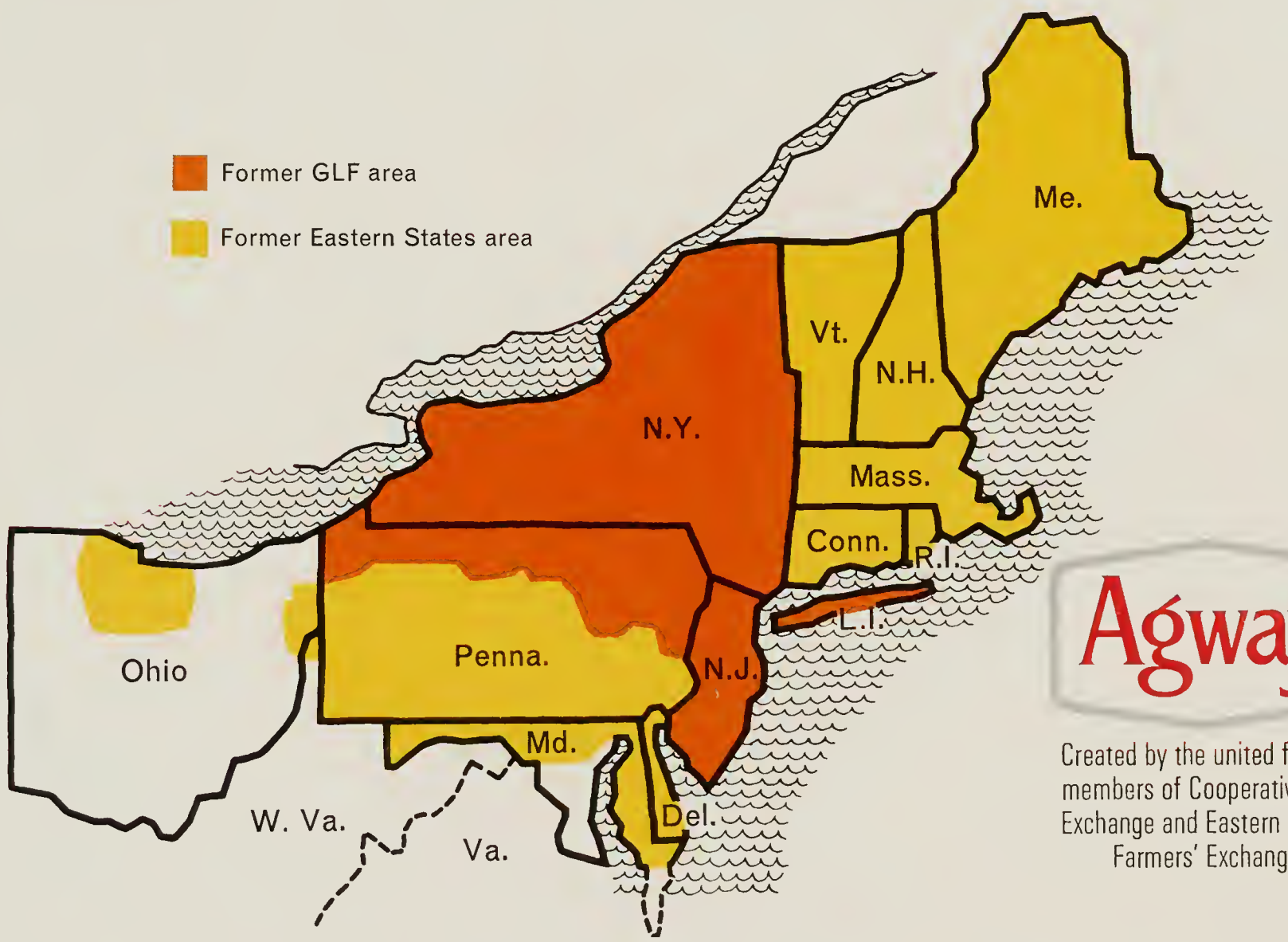
Agway will bring your raw materials and manufactured products from wherever they can best be bought. It will mix and blend, refine and process at the most advantageous points. It will deliver more and more direct to your farm at lower cost.

And Agway will be a working partner in helping you to move an increasing volume of many of the products which feed 35% of the nation's population.

Agway Is You

Farmer-directors, elected by you who are the member-owners of Agway, will set the policies to meet your needs. Aided by responsive management, they will shape and sharpen the future of the new organization. But much depends on you.

Agway's strength lies on the farm, in the energy, time and guidance you give to local committees and councils, in the intensive use you make of your investment. For you are Agway.



Agway

Created by the united farmer-members of Cooperative GLF Exchange and Eastern States Farmers' Exchange



te Farmer John Armstrong, Salmon River FFA Chapter, Fort Cov-nter) is flanked on either side by highest proficiency winners, as ft to right: Ted Wolff, Greenwich, farm electrification; Glen Powell, , livestock; Raymond Bice, New Berlin, dairy farming; Paul Cook, mechanics; Dennis Budine, Walton, soil and water management; ox, Bergen, public speaking.

ONVENTION

usand New York State ys met for the 39th Convention of the New ociation of Future Farm-erica, which was held in a Central School, Attica, k. Here are some of the s of the Convention.

Armstrong (19) a 1963 of Salmon River Central Fort Covington, New s elected New York State ner of 1964.

a modest beginning in with two calves as a in high school four years now owns and operates plete management a 152-stocked with 32 head of tle. The farm, with build-stock, combined with ma-nd supplies, give him an t in farming of $30,000, worth of $11,500.

ated for the American Degree were seven FFA with David Wells of amed as the most out-nominee. The others are: Eccles, Kennedy; James Cortland; Richard Curtis Boonville; Edward E. r., Dryden; Edward H. Barker; and Stanley Ed-omas, Adams.

s elected for the coming president, Gary Swan, secretary, Larry Rose, alley; and treasurer, Paul , Beaver Falls.

Geobeth Burcar Kate, a bred and owned by . Williams of West Win-w York, has been named igh in the United States the Senior two-year-old, division of the official testing program.

nt — The Dairymen's building a new modern nt in the Jeffersonville w York. It is expected plant (estimated to cost 0,000) will begin receiv-within approximately ths. It will have a ca-f 3,000 cans (120,000 per day. The Coopera-tling plant at Goshen is completion, and will be handling milk by the end of the summer.

Herd Averages — The herds of the following New York State dairymen posted fat averages in excess of 700 pounds (305 days, 2X milking): Howard Colton, Angelica — 33 cows, 20,247 milk, 750 fat; Merton Plaisted, Hammondsport — 21 cows, 18,393 milk, 740 fat; Gerald Stoeckel, Bloomville — 37 cows, 19,650 milk, 722 fat; Howard Saxton, Locke — 44 cows, 19,296 milk, 713 fat.

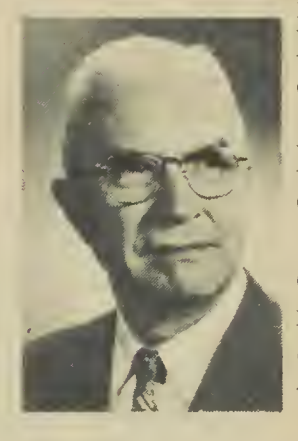
Named to Advisory Committee —

John C. York, executive secretary of Eastern Milk Producers Cooperative Association, has been named a member of the Advisory Committee on Milk and Dairy Products of the Department of Agriculture & Markets. First formed two years ago, the Committee advises the Secretary of Agriculture on legislative and administrative matters affecting milk and dairy products.

For Research —

Max V. Shaul, Fultonham, New York, winner of a 1964 Ford Farm Efficiency Award, has presented his $2,000 in prize money to the New York State College of Agriculture at Cornell University for research in vegetable storage.

Retiring — Professor Leland Spencer, one of the top milk economists in the United States, will retire from Cornell University on July 1. Dr. Spencer is known throughout the nation and in many other parts of the world as a specialist in milk marketing, and his services as economic analyst and consultant have been in wide demand by state and federal agencies, as well as by farmer and dealer organizations in the milk industry.



Professor Spencer's career has included special assignments with the U. S. Department of Agriculture, U. S. Tariff Commission, and the State Departments of Agriculture in New York and New Jersey. "But above all he has been a researcher and teacher in milk marketing," says Professor Glenn W. Hedlund, head of Cornell's agricultural economics department.

THE LUCKY ONES



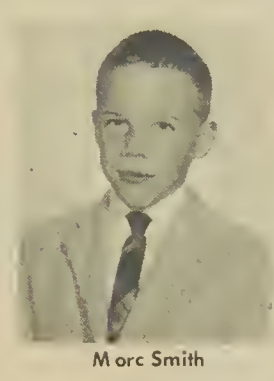
Herbert Gregory



Lindo Heller



Corrine Stewart



Morc Smith



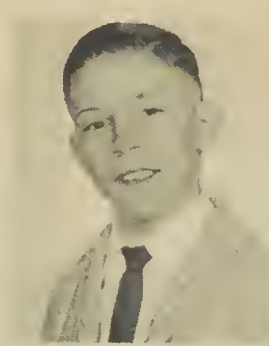
Joy Motteson



Bonnie Lou McAfee



Moy Emerling



Robert Crnkovich



Eorl Brown

The happy youngsters pictured on this page make up a fraternity — or should it be sorority, or both? At any rate, they are the fortunate owners of their own livestock, donated by the Empire Livestock Marketing Cooperative. We are sorry that we have no picture of Cynthia Fay Chavis, 10-year-old daughter of Mr. and Mrs. York, who also was one of the winners.

For several years Empire has made it a part of their local annual meetings to hold a drawing for purebred calves, or the cash equivalent for the purchase of other kinds of livestock. This, naturally, is the high spot for the young folks, who wait eagerly to see who are to be the lucky recipients. And they will spend the next year making sure that they can give good reports on their animals when the 1965 meetings roll around.

The picture of Richard C. Dyer, 8-year-old son of Mr. and Mrs. Roger Dyer, Bath, leaves no doubt how he feels about animals.

At the Caledonia Market, Robert J. Crnkovich (13), son of Mr. and Mrs. Joseph Crnkovich, LeRoy, was the lucky winner of a dairy heifer calf. Lynda J. Heller (11), daughter of Mr. and Mrs. Whitney Heller, Hamlin, won a beef calf; Marc Smith (9½), son of Mr. and Mrs. Lawrence Smith, Piffard, became the owner of a purebred gilt; and Bonnie Lou McAfee (11½), was the recipient of a registered ewe lamb. She is the daughter of Mr. and Mrs. Earl A. McAfee, York, and a member of Iroquois 4-H Club.

Corrine F. Stewart (11), daughter of Mr. and Mrs. Sibley A. Stewart of Dryden, won a calf at the Dryden Market. She hopes to show it at the FFA-sponsored annual Show at the Dryden School, and at the Tompkins County Fair.

At Gouverneur, Earl Brown, son of Mr. and Mrs. Carlton Brown of Antwerp, won his calf; and Herbert E. Gregory (14) of New Berlin, was the winner at Oneonta. He is the son of Mr. and Mrs. Stephen D. Gregory.

Jay Matteson, Watertown, took the first and second degrees in Star Grange #9 in April of this year, and was the lucky winner at his home town market. His parents are Mr. and Mrs. Harlow Matteson.

May E. Emerling (13) daughter of Mr. and Mrs. Bernard Emerling, Springville, won the Producers Empire award. May is a member of the United 4-H Club of Colden.



Richord Dyer

HAVE SEAT BELT, WILL TRAVEL!

by Sally Goth



With shopping finished, a ride is next on the agenda! Seat belts are securely fastened, and mother can drive with a more relaxed feeling, enjoying the scenery and summer sunshine.

Photo: Notional Safety Council

"SEVEN DIE IN TRAFFIC ACCIDENT" — startling headlines in an evening paper with all the gruesome details in fine print. So you read about it and note that it was a dead-center, head-on collision, and none of the persons was wearing a seat belt.

Maybe in your complacent manner you think, "What a tragedy, but it just couldn't happen to me. I've never experienced even a minor accident in all my years of driving," and you dismiss it from your mind. You are to be congratulated on your fine record, my friend, but let me point out there are times when you have to look out for the other fellow. You may be 100 percent right and still land in a hospital or perhaps, heaven forbid, even a morgue.

If I frighten you, it is purely intentional. I wholeheartedly advocate seat belts, and if this article could save even one life by convincing a few folks to use them, I'd feel much better than any Girl Scout who'd done her good deed for the day.

For those of you who have flown commercially, do you argue with the stewardess when the "Fasten Seat Belt" sign illuminates? I doubt it. It is a foregone conclusion that seat belts are necessary, they are there, and you use them. Why, therefore, as statistics continue to prove that seat belts do save lives in cars, is it so difficult to convince people to use them?

We have had seat belts in our car for many months, and for us they serve another very useful purpose. We have two sons, 5 and 2½ years, and there were never more rambunctious youngsters, I am sure. However, they protest violently if their seat belts are not fastened before the car is started. In his vocabulary of small words, our younger knows "belt" very well, and the moment he enters the car he says it with accompanying motions, attempting to fasten his own. It is no novelty that has worn off. They understand that belts are part of the car, just as tires or gasoline are, and they ride contentedly whether we drive five miles or fifty.

For a mother driving alone, I cannot overemphasize the relaxed feeling which is experienced, knowing if you have to stop suddenly, your child will not be thrown off the back seat or crash his head against the dash.

I'm not sure compulsory laws are the answer. Even if you are compelled to put belts in your car, who knows whether or not you use them. And whether we admit it or not, we rebel against regimentation, and this alone would make some folks even more determined to avoid them.

We lost a dear family friend last year in a senseless one-car accident. She was riding with friends, and on a small patch of ice at a point in the road where a resurfaced section ended, the car swerved out of control and crashed into a large tree. She was thrown into the highway and died of a fractured skull, crushed chest, and other injuries ten minutes after arrival at the hospital.

I spoke with the trooper who investigated. He said, "I can't be absolutely certain, of course, but I'd be almost willing to swear that had she been wearing a seat belt, she would not have been killed. The car wasn't going fast. It was being thrown into the highway that did the real damage."

Naturally, there are fatalities that occur with belts, but compared to those that happen without them, they are only a small percentage.

Think about it, and if you have to sacrifice this week's movie and next week's bowling, do just that! People pay, year after year, until they die to buy insurance which will provide for their families after their death. This is fine. But why not make a small, one-time investment to guard the present and the future for them and for yourself. Truly, the lives you save may be your own and theirs!



Garden Talk

By NENETZIN R. WHITE

ORNAMENTAL SHRUBS are the basis and background for all our plantings. They can give us texture, flowers, and color the year around. This month and in August I want to discuss some of the deciduous ones, or those which shed their leaves in the winter. The majority of these are most tolerant of soils, and many of them will also tolerate shade or unfavorable moisture conditions.

These shrubs can be used as specimen plants, in borders, or as foundation plants — with or without evergreens. There is a wealth of beauty and fragrance in this group of plants. Since it would be impossible to cover the whole range, I am picking out some of the most noteworthy — newer varieties and my favorites, all hardy in the central Northeast.

Flowering Almond (Prunus glandulosa) has been a favorite since your Grandmother's day and still has much merit as a small shrub. In May its stems are covered with extremely double pink or white flowers.

Alpine Currant (Ribes Alpinum) is not as well known as Flowering Almond, but is a very shapely, small plant with yellow spring flowers.

Althaea or Rose of Sharon now comes in many new shades of red, blue and white, as well as the older violet color. Some are semi-double, and they blossom in August when blooms are at a premium.

Azaleas have been improved so much that you will have to see them to believe it! Along the coastal areas numerous varieties do very well. In our Ithaca, New York, area we tried for many years to grow azaleas, and for the most part, results were spotty and poor. In a few isolated instances, with absolutely perfect conditions, results were noteworthy.

Now we are using the Mollis Hybrids with fantastic results. These plants are most tolerant of soil and exposures and reward us with mammoth blossoms of yellow, pink, orange, or red — and all the shades in between.

One of the newer DeRothschild Hybrids has a white background with stripes and dots of red and pink. It makes me think of Lily Speciosum rubrum, and the clusters of blossoms are unbelievable.

Burning Bush or Dwarf Burning Bush (Euonymus alatus or E. alatus compacta) have long been favorites of Phil's and mine. The individual flowers are inconspicuous, but their full beauty makes them outstanding. Both become a very unusual pink-scarlet color early in the fall, and they are a blaze of glory for nearly a month.

They have most interesting orange bittersweet-like fruit and corky wings on the branches, giving texture and interest even in the winter.

Feeding your shrubs will bring direct and good results. Usually all that is necessary is some organic phosphate (such as ground bone meal), but if your soil is generally poor, a complete fertilizer may be necessary every year or two. I like to use organic fertilizers because they don't burn, are long lasting, and improve your soil. Do not feed too late in the season (August), for you may force new growth that will be tender and easily damaged or winter killed.

Above all — enjoy your flowers! Smell them, pick them, and have fun. A rule of thumb about pruning flowering shrubs is to do this right after they bloom, thus insuring next year's blossoms. So pick to your heart's content when your shrubs are in flower; you will enjoy the blossoms and help the plants.

The AA Clothes Line

9166. Slim sheath with band neckline. Printed Pattern Half Sizes 12-1/2 - 22-1/2. Size 16-1/2 takes 2-5/8 yards 45-inch. 35 cents.

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4728. Simple bodice, box-pleated skirt. Printed Pattern Half Sizes 12-1/2 - 22-1/2. Size 16-1/2 takes 4-1/2 yards 35-inch. 35 cents.



4695. Cool casual - just two main parts. Printed Pattern in Misses' Sizes 10-18. Size 16 takes 3-1/4 yards 35-inch fabric. 35 cents.

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PATTERNS are 35¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York 11, N. Y. Please write name, address, pattern size and numbers clearly.

FREE PATTERN OFFER! There's a COUPON inside our Spring-Summer Catalog good for one FREE pattern of your choice. Pick your favorite style from the hundreds of design ideas shown. Fashions for all ages and occasions—separates, sheaths, costumes, coats—all the newest shapes. Send 50¢ for your Catalog TODAY.

Important Issues AA in 1964

1. FARM EQUIPMENT & MATERIALS HANDLING ISSUE—*AUGUST (Closing July 1)*

Major tractor manufacturers, materials handling equipment manufacturers, upstate electric power companies and the Empire State Potato Club, along with wholesalers and retailers of farm equipment, will exhibit and demonstrate their equipment at—

New York State Farm Equipment & Materials Handling Exhibition
New Hartford, New York—The Humphrey Farm (located south of Utica, N. Y.)

AUGUST 12 - 13

2. NEW YORK STATE EXPOSITION ISSUE—*SEPTEMBER (New York American Agriculturist)*

The New York State Exposition is held September 1-7, at Syracuse, New York.

Exhibits by Harold L. Creal
New York State Exposition
Exposition Grounds
Syracuse, N. Y.

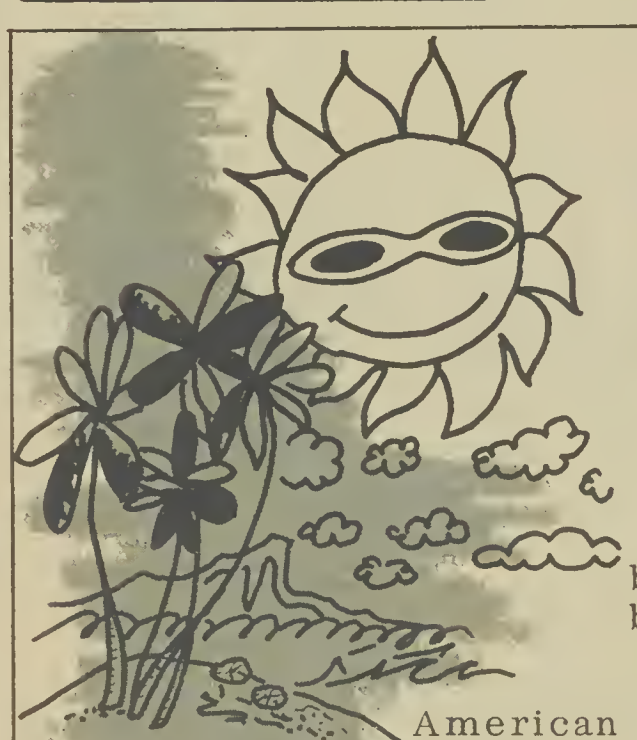
Forms close July 27 for the September issue.

EASTERN STATES EXPOSITION ISSUE—*SEPT. (New England American Agriculturist)*

The Eastern States Exposition is held September 19 - 27, at West Springfield, Mass.

Exhibits by Jack Reynold
Eastern States Exposition
Exposition Grounds
West Springfield, Mass.

Forms close July 27 for the September issue.



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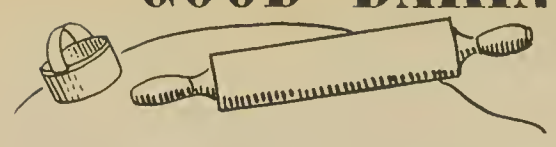
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1964 EXPOSITIONS

NEW YORK
September 1-7
Syracuse, N.Y.
American Agriculturist's September issue is published early for TIMELY coverage and the preview of this statewide event.

EASTERN STATES
September 19-27
W. Springfield, Mass.
American Agriculturist's September ISSUE for New England will preview this Northeast event with its 500,000 attendance.

GOOD BAKING TO YOU



by Alberta D. Shackelton

No. 2 — Quick Breads

What Are Quick Breads?

Quick breads are raised with quick-acting leaveners — baking powder, baking soda and an acid as in sour milk, and steam or air rather than with longer acting yeast. From the oven can come biscuits, muffins, popovers, cornbread, coffee cakes, nut or fruit loaves, spoon bread, and one type of brown bread. Pancakes and waffles from the griddle, doughnuts and fritters from the deep-fat kettle, and dumplings and brown bread from the steamer complete the list.

Biscuit Baking

Our present day symmetrical biscuits, golden brown of crust and creamy white, tender, slightly moist inside, are descendants of the crude hearth cakes made by primitive peoples. From a basic recipe, you can turn out drop biscuits, shortcake, scones, sweet buns and rings, and cobblers.

BAKING POWDER BISCUITS

2 cups all purpose flour
3 teaspoons baking powder
1 teaspoon salt
1 to 2 tablespoons sugar
¼ cup shortening (1/3 cup for richer biscuit)
¾ cup milk, about (2/3 cup with larger amount shortening)

Sift together the dry ingredients. Cut in shortening with a pastry blender or two knives until mixture looks like coarse meal. Add milk and stir just enough to hold dough together. Knead dough on lightly floured board about 6 times, handling carefully, and pat or roll to about ½ inch thick. Cut with a 2-inch floured biscuit cutter.

Place on ungreased baking sheet and bake in middle of very hot oven (450°), 10 to 12 minutes. Serve hot from the oven (reheat leftovers in foil). Makes 12 to 18 biscuits.

Biscuit Tricks

For crusty tops and sides of biscuits, place 1 inch apart on a baking sheet small enough to permit circulation of heat and allow more uniform browning. For soft sides, place biscuits close together in a round layer cake pan. Using a heavy or shiny baking sheet prevents over-browning of biscuits on the bottom.

For quick drop biscuits, increase milk to 1 cup and drop from spoon onto baking sheets or into greased muffin cups. You can use sour milk or buttermilk in place of sweet milk and add ½ teaspoon baking soda to dry ingredients.

Create your own variations by adding to the recipe any one of the following: 1/3 cup diced crisp bacon, 4 tablespoons minced chives, about 1 teaspoon of your favorite herb mixture; ½ to 1 cup grated Cheddar cheese, ½ cup chopped nuts; ½ cup any chopped dried fruit. For shortcake, make a richer dough, increasing sugar to 4 tablespoons and combining 1 egg with the milk before adding to dry ingredients.

Muffins

Our grandmothers called muffins "gems" and baked them in heavy iron pans. Muffins are usually made by adding combined liquids all at once to the sifted dry ingredients and mixing only until flour mixture is dampened. A golden brown muffin with slightly rounded top (pebbly looking), tender crust, with slightly moist, light crumb of uniform texture, and free from "tunnels" can be a real quick bread triumph.

MUFFINS

2 cups all purpose flour
3 teaspoons baking powder
¾ to 1 teaspoon salt
3 to 4 tablespoons sugar
1 egg
1 cup milk
¼ cup soft or melted shortening or salad oil

Sift dry ingredients. Combine egg, milk, and shortening or oil and add all at once to a well made in center of dry ingredients. Stir lightly and just until flour is dampened (batter will be lumpy). Do not over-mix, as it causes tunnels.

Drop batter in greased muffin cups (grease bottoms only), filling 1/2 to 2/3 full. Bake in a moderately hot oven (400°), 20 to 25 minutes or until uniformly golden brown. Remove pans to rack and let muffins stand in pan 2 or 3 minutes for easy removal. Serve hot (reheat leftovers in foil). Makes 12 medium size muffins.

Muffin Tricks

For a light delicate crust, choose a pan made of heat reflecting material, such as shiny tin or aluminum. A desirable crust may be obtained in pyrex cups, iron baking pan, darkened tin, or little fluted pie pans, if you lower the temperature for baking to 375°.

For extra special muffins, use 1/2 cup shortening and cut it into

(Continued on page 25)

NEW CANNING BOOK

A brand new edition of the popular BALL BLUE BOOK, with complete information about home canning, freezing, jelly making, etc., is now available. Beautifully illustrated, the book contains the latest timing charts, improved preserving methods, and many recipes for Pickles and Relishes, Conserves, Marmalades, Meat Dishes, etc.

Ball Blue Books may be obtained by sending 35 cents in coin for each copy wanted to: Blue Book, Dept. KCP, Box 2005, Muncie, Indiana.

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Dr. Naylor's **LINITE**

Quick Breads . . .

(Continued from page 24)

the combined dry ingredients. Reduce the milk to 3/4 cup, add the egg, and proceed as above.

Try your own variations: for Graham Gems, use 1 cup flour, 1 cup whole wheat flour, and 2 teaspoons baking powder; or add 1 cup well drained fresh or frozen blueberries or cranberries (cut and lightly sugared), or 2/3 cup any chopped dried fruit; or roll muffins immediately after baking in melted butter and then in a mixture of sugar and cinnamon.

Coffee Cakes

Here is a quick bread coffee cake which I think you will like. Use a shiny pan to give a light, delicate crust to your coffee cake.

FRENCH COFFEE CAKE

½ cup shortening
1 cup sugar
3 eggs
1 teaspoon vanilla
2 cups all purpose flour
1 teaspoon baking soda
1 teaspoon baking powder
½ teaspoon salt
1 cup thick sour cream

TOPPING

2 tablespoons soft butter
3 tablespoons flour
¾ cup brown sugar
1 teaspoon cinnamon
½ cup chopped pecans

Make topping by mixing soft butter, flour, brown sugar, cinnamon, and pecans together until crumbly.

Cream shortening and sugar together until light and fluffy and add vanilla. Add eggs one at a time, beating thoroughly after each addition. Sift together the dry ingredients and add alternately to the butter-sugar mixture with the sour cream.

Pour half the batter into a lightly greased 8-inch square cake pan. Cover with half the topping. Pour rest of batter on top and sprinkle remaining topping evenly over batter. Bake in a moderate oven (350°), 50 to 60 minutes. Makes 8 to 10 servings. If desired, coffee cake may be baked in a small greased tube pan.

Tectrol storage

(Continued from page 11)

the same favorable results on similar trials with a number of green vegetables." According to Dr. Bedrosian, Tectrol "currently represents 15 to 20 percent of the CA storage, and has made several areas (Virginia, New Jersey, and Quebec) important CA areas."

During the 1962-63 storage season, there were 8½ million bushels of apples in this country under CA storage. The current prediction is that by the end of the 1960's this figure will climb to 20 million bushels; with Tectrol in the picture, it might even go higher than that.



The popular SS Lurline will again be used for the steamship tour to Hawaii. We'll have a glorious cruise aboard this beautiful ship both going and coming home, with the many diversions that only a great liner can provide.

HAWAIIAN TOURS

There is still time for you to join one of our Hawaiian Tour parties for a wonderful fall vacation in the "Paradise of the Pacific." The dates for our steamship tour are September 1 — October 1 and for the air tour, October 10-25.

We have planned these two trips with our very competent tour directors, the Travel Service Bureau of Needham, Mass., so that both groups will see all the places in Hawaii that our American Agriculturist tour parties have enjoyed most. A few of the places you will see if you come with us are Haleakala Crater, the world's largest dormant volcano; the colorful Maui Pali Coast, Lahaina, Mauna Loa, Hilo's orchids, Akaka Falls, the vast Parker Ranch, Kaiula, Hawaii National Park with its giant fern forests, Waimea Canyon, Waikiki Beach, and "Battleship Row" in Pearl Harbor.

On every Island we visit, you'll find scenes of unforgettable beauty and spectacular color . . . golden sunshine, the blue Pacific, white beaches of coral sand, tropical vegetation and flowers everywhere.

Whichever one of these wonderful tours you choose, you will have a glorious time and travel with the greatest ease and pleasure. On an American Agriculturist tour, there is nothing for you to do but enjoy yourself. The all-expense ticket covers everything, even the tips.

We'll be glad to send you a free copy of either or both of the itineraries, which give full details and cost of the tours. Just fill out the blank below and send it to us as soon as possible, for time is getting short.

Gordon Conklin, Editor
American Agriculturist
Box 367-H
Ithaca, New York

Please send me, without obligation on my part, the following tour itineraries:

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Hawaii by Air _____
Name _____
Address _____

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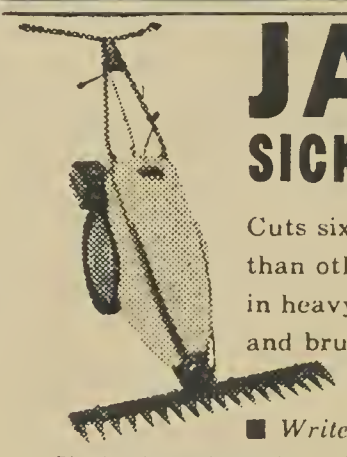
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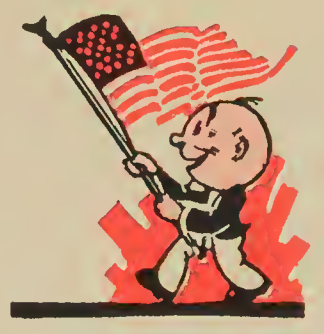
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ED EASTMAN'S PAGE



THE PRICE OF LIBERTY

It was very hot in Philadelphia on that 4th day of July in 1776. All business was at a standstill, and since earliest morn crowds had roved the streets or stood in little groups talking in low tones. There was a feeling of high tension in the air, a feeling of expectancy, and the rumbling of thunder over the distant horizon seemed to add to that feeling.

The biggest group of all was in front of the State House, where was meeting the Continental Congress. Everyone knew that the Congress was debating the report of a committee headed by Thomas Jefferson, and that the way the Congress voted on that report might shake the very foundations of the world, their country, their homes, their lives, and the lives and fortunes of generations to come.

Until this momentous 4th of July there had been little thought on the part of the majority of a final separation from Great Britain. The fighting so far was only an attempt to bring about a compromise and adjustment with the Mother Country so the colonists could live and carry on their work without constant oppression and infringement of their liberties. There were thousands of the colonists who sincerely believed that a complete separation from Great Britain would bring disaster and ruin. So of course there was tension in the air on this hot day — tension that might explode into violence, as hour after hour dragged on with no sign that any agreement had been reached on Mr. Jefferson's proposals.

Declaration Signed

Then suddenly at 2 o'clock in the afternoon the door of the State House was yanked open and a man yelled: "It has passed! It has passed!" A boy stationed as a sentinel where he could watch this door and the belfry at the same time shouted to the old man in the belfry: "Ring! Ring!" And ring he did, throwing the clapper of the bell so violently against the side that the peals of the bell were heard all over Philadelphia — and in spirit all over America and around the world.

The crowd went wild! Dignified gentlemen threw their hats into the air and jumped up and down. Women cried. (They were destined to do a lot more crying before the liberties proclaimed in that Declaration of Independence were finally achieved). The 56 delegates in that Congress, representing all of the colonies, well knew that they would be called traitors, and that they were risking their lives. In that famous body of delegates who voted unanimously for the Declaration were some of the wisest men who have ever lived on this globe — men like Thomas Jefferson himself and Benjamin Franklin. Nevertheless, they placed their lives on the altar of freedom. . . .

We Can Lose It

This little story is being written on the afternoon of May 30, 1964, Memorial Day. This morning I went up to Ithaca City Cemetery to listen to the beautiful program in honor of the men who have died — most of them boys — in the continuing struggle to maintain the liberties set forth in that Declaration of Independence passed by the Continental Congress.

I came away from the exercises disturbed and saddened. It was a fine program, well advertised, and supported by all of the many patriotic organizations of the city. It was a lovely, sunshiny day and a beautiful, reverent spot. But out of all of Ithaca's population there were only a few there. The people did not care enough to take an hour off to remember the war dead and what they had died for.

Maybe I'm too pessimistic, but I am sure that unless we, the people, make the maintenance of our liberties — which have cost so much to every one of us — one of the great objectives of our lives, we will surely lose them.

I ask myself just how really patriotic I am. Am I so concerned with all the material things of these times that I take for granted all of our vast inheritance of spiritual things that cost so much in blood and tears? Am I doing my part in handing on the torch undimmed as my forefathers handed it to me? Have all of us forgotten that the price of liberty is eternal vigilance?

CAN YOU BEAT IT?

To one accustomed as I have been to having all the land I wanted for vegetables, flowers, or crops, it is astonishing to learn how much can be grown on a small plot of ground. For example, we have a piece of our backyard, only about 10 feet square, on which last year we grew enough peas for several good-sized messes. Then we cleared the vines off and sowed buckwheat broadcast. It blossomed fragrantly, and in the fall the straw turned a beautiful yellow and the buckwheat made a feast for the birds all fall and early winter.

This year we sowed peas again. They were in full blossom the last week in May, and we had enough for our family by June 15th. Can you beat that? Between the rows of peas we planted zinnias, so when the peas are off we will have a big colorful flower bed of zinnias until frost.

That's quite a comedown from the farm we sold, but it proves that you can still have fun with growing things even with a little land.

ENLARGE YOUR FARM

Every time I fly over the farm country of the Northeast I am impressed with the good land that is wasted by hedges. Many of them get wider each year because it is difficult to get close to them with modern equipment. Why buy more land when often several acres can be added by eliminating the hedges? Why leave the hedges to breed disease and vermin?

While you think of it, look over your farm and see what can be done with the bulldozer to make larger fields, increase the size of your farm with good land, and make it easier to operate tractors and equipment.

FOR LONG-LIVED PRODUCERS

In a recent *Farm Bureau News,* the Dairy Herd Improvement Cooperative (DHIC) listed 54 cows on the honor roll for milk and butterfat production for 305 days or less. Each of these cows produced over 16,000 lbs. of milk; the highest was 22,540 lbs.

One of the highest producers was 13 years old; three were 10, and two were 9 years old.

The whole record is remarkable, and can be duplicated in every dairy county.

What impresses me, and what I always look for is the length of time that a cow stays in high production. I want to know what the cow's record is — not for one year but over several years, because replacements are the dairyman's most costly expense. Just think what it costs to have to replace your entire herd in a few years!

How can a dairyman extend the lifelong production of his herd? The solution to that problem starts with good records, not for one year but for as long as the cow is kept in the herd. The second solution is to breed for long-distance production — and the breeding program should of course include the record of the bulls.

* * *

In the United States it takes only 7 out of 100 workers to produce food; in Russia, it takes 40 workers out of every 100.

EASTMAN'S CHESTNUT

Rev. Ernest A. Droppa, Minister of The First Methodist Church at Little Falls, New York, is one of my many friends whom I know by correspondence but have not had the privilege of meeting. Among his other good qualities is his sense of humor. What a privilege it must be to listen to his sermons! He sent me the following story:

A little boy was out visiting in the country. He went into the house and left the door open. An old grouch of a farmer was standing nearby and shouted at the top of his voice:

"Shut that door! Where do you think you were brought up — in a barn?"

The little boy shut the door. Then he went over to a stool, sat down, and began to cry his heart out.

The old farmer came over and said:

"I'm sorry, sonny, I didn't mean that you were brought up in a barn."

And the boy replied: "That's not it, Mister. I was brought up in a barn, and it makes me terribly homesick every time I hear an ass bray!"

American Agriculturist, July, 1964



Independence Hall, Philadelphia, Pa., originally called STATE HOUSE. It was here that the Declaration of Independence was adopted. See story on this page.

AA SERVICE BUREAU

CATTLE DEALER

Over the years we have had several complaints against Louis Gale, cattle dealer, of 214 Kensington Place, Syracuse, N. Y. In checking on a recent complaint from a subscriber, we found that Mr. Gale was convicted of Petit Larceny in Cayuga County on his plea of guilty on December 6, 1963. He is currently under a one year suspended sentence and on three years' probation.

According to District Attorney Charles W. Avery of Cayuga County: "The charge arose from Gale's taking a cow from one of our Cayuga County farmers with the statement that he would sell it for the farmer. He also made a statement about the amount of money he would be able to get per pound. He never came back with the money. He was indicted for Grand Larceny 2nd Degree based on the fraudulent statements, and, in this connection, it is important to note that his usual method of operation was to purchase the cattle for himself, promising to bring the purchase price some time in the future but failing to do so. Such an operation does not permit a larceny prosecution, but we were able to draw the distinction that in our case he offered to sell the cow on behalf of the farmer and obtained possession of the cow by this fraudulent means."

Any reader from Cayuga County who has a complaint against Mr. Gale may want to discuss the matter with District Attorney Avery, whose office is in the Court House at Auburn, N. Y.

The New York State Department of Agriculture & Markets has cited Mr. Gale for violations of the N.Y.S. Agriculture & Markets Law. As of May 5, 1964 he was not and had not been licensed and bonded as a dealer under this Law, which includes all farm products except grains or timber.

To protect yourself in selling your farm products, make sure that the dealer to whom you sell is properly licensed and bonded by the Department. Each dealer should have evidence of compliance with this regulation in his possession when he stops at your farm.

CAN YOU HELP?

Mrs. Marjorie H. Bain, 169 W. Main St., Wappingers Falls, N.Y. is trying to locate a Grandfather's clock which belonged to her father's family. According to records, it was sold at auction by Franklin Halstead on March 31, 1883 for $25.00 to E. L. Barlow (or Burlom). The auction was held a few miles east of Benson Village, Vermont. The clock stood 8-10 feet high, was of brown wood, and the weights were iron.

* * *

Mrs. Joe Ortel, 35 E. 8th Ave., Gloversville, N. Y., would apreciate the words to the following poems: "I saw the blue line sweeping past, or heard, or seemed to hear the chorus as it sounded through the evening, calm and clear."

"I stood on the bridge at midnight
As the clock was striking the hour.
The moon rose over the city
Behind the dark church tower."

* * *

Mr. Stanley Jiroudeh, 34 Rose Ave., Staten Island, N. Y., would like the words to the old song, "My Grandfather's Clock."

* * *

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mr. Lawrence Gerhardt, Sauquoit $13.95
(refund on merchandise)
Mr. Arthur R. Glover, Shortsville 75.00
(payment on account)
Mr. John A. Black, West Kill 1.00
(refund on order)
Mr. Carlton Loomis, Bainbridge 4.50
(refund on envelopes)
Miss Mary Donaldson, Nineveh 4.40
(refund on sweater)
Mrs. Thomas Holl, Jr., De Ruyter..... 3.98
(refund on roses)

NEW JERSEY

Mr. Wm. S. Howell, Washington..... 36.35
(refund on band saw)

NEW HAMPSHIRE

Mrs. Roger Kilton, West Canaan..... 7.85
(refund on tablets)

VERMONT

Mrs. Elmer Wright, Middlebury 9.88
(refund on heater)
Mrs. Don F. Cooley, South Royalton..... 13.88
(refund on records)

MASSACHUSETTS

Mr. & Mrs. Carl Broadwell, Ashfield 50.00
(refund on siding contract)

CONNECTICUT

Mrs. Fred Wimler, Jr., Durham 25.00
(payment for wreaths)

ADDRESSES WANTED

Margaret Cox Ashby, who attended private school in Utica, and worked there for some time. Her last known address was Rochester, N. Y.

* * *

Mrs. Arline Mason, who wrote one of our subscribers about exchanging pencils, but did not give her address.

* * *

Russell Dunckel, son of Adam Dunckel, formerly of Little Falls, New York.

* * *

John and Mary Graham, who lived on Broadway, Buffalo, N.Y. in 1895. Their son is anxious to contact them, or friends or relatives.

* * *

Marianne Sparrow, who lived in Buffalo, N. Y. in 1923.

* * *

William Cox, in his early 60's, at one time lived on Niagara St. in Buffalo, N. Y. Last known address was Sugar Island, Mich.

* * *

Any of the family of Harris Philips, whose brother was James V. Philips, and whose former address was Norwich, N. Y.

* * *

Nearly Buried Alive In Silo



Wilbur Roggie, at right, of Carthage, N.Y. received check from local agent Bernard Virkler of Castorland, N.Y. Suffering a fractured pelvis and sacrum, benefits for medical expenses and loss of time totaled $1415.00 under two policies. Mr. Roggie wrote this letter of thanks:

"I would like to thank the North American Accident Ins. Co. for their quick settlement of my claim. It's a good feeling to know that your bills are being paid even though you are laying helpless in a hospital bed. I was always careful around machinery so I wouldn't get hurt but in just a few seconds I almost lost my life when frozen corn caved in on me while throwing down silage. I now feel that this protection is a good investment. I would like to thank Mr. Virkler for persuading me I needed it and also for his kind personal attention during my recovery."

Wilbur Roggie

OTHER BENEFITS PAID

Albert Shafer, Angelica, N.Y. $ 150.00
Fell from wagon—bruises
Thaddeus E. Harford, Lisle, N.Y. 338.49
Auto acc.—whiplash injury
John R. Benson, East Randolph, N.Y. .. 260.00
Plowing, struck in eye—injured eyeball
Vincent Klock, Auburn, N.Y. 441.82
Slipped getting out of car—fract. ribs
Harold Hoyt, Sherman, N.Y. 500.49
Tractor crank pierced chest
Homer F. Foster, Jr., Horseheads, N.Y. 514.43
Hit by car while driving tractor—back injury
Paul Lawton, Oxford, N.Y. 932.11
Crushed by cow—fractured leg
Ray A. Kniffen, Little York, N.Y. 983.07
Stepped in hole—fractured leg
Gladys Rosa, Delhi, N.Y. 727.64
Slipped & fell—injured knee
Nettie Wood, North Bangor, N.Y. 160.71
Auto acc.—injured back
Raymond Conover, Gloversville, N.Y. ... 222.00
Fell off truck—inj. hips, neck
Mary Jane Clarke, Bergen, N.Y. 630.70
Auto acc.—injured neck, shoulder, arm
John Mezik, West Winfield, N.Y. 444.67
Knocked down by cow—injured back
Joseph Kirkby, Oxbow, N.Y. 1,054.28
Slipped & fell—injured back
Mary Sweredoski, Sackets Harbor, N.Y. 513.00
Fell off chair—injured back, hip, shoulder
Michael Kaban, Lowville, N.Y. 391.36
Slipped on corn cob—injured leg
Lester Van Buskirk, Mt. Morris, N.Y...... 179.28
Auto acc.—cut scalp, bruises
Ivon Goodrich, Earlville, N.Y. 1,340.00
Hit by car—mult. fractures, cut & bruises
Barbara DeConinck, Rochester 5, N.Y. 412.21
Auto acc.—injured neck, back, hip
Agnes Lyttle, Churchville, N.Y. 126.43
Slipped & fell—injured foot & toes
Dorothy K. Abraham, Amsterdam, N.Y. 383.15
Crushed by cow—badly injured hand
Henry Szewczyk, Sauquoit, N.Y. 1,244.28
Piece of steel hit eye—cut cornea
William Zollo, Baldwinsville, N.Y. 366.42
Fell on stairs—injured knee
Charles Angell, Stanley, N.Y. 595.30
Fell riding horseback—broke vertebrae
Frank Garrison, Middletown, N.Y. 1,107.86
Tire blew up—broke leg, bruises
Richard Miller, Albion, N.Y. 234.00
Fell off truck—injured knee, ankle, back
Hattie Phillips, Parish, N.Y. 119.62
Fell—injured leg
Wells R. Eddy, Buskirk, N.Y. 416.58
Fell against PTO shaft—injured chest
Newell O'Brien, Hermon, N.Y. 297.85
Slipped & fell under saw—cut & broke shoulder
Bernard Stebbins, Canton, N.Y. 207.14
Fell from truck—broke collarbone
Clifford Pinder, Sharon Springs, N.Y. .. 550.85
Pulled into beaters of unloading wagon—broke shoulder, severe cut back
Maude Smith, Campbell, N.Y. 516.34
Tripped and fell—broke shoulder
Vernon Gehm, Berkshire, N.Y. 2,091.42
Auto acc.—multiple cuts of face, broke cheek & jaw bone, injured thigh & ankle
Robert Carrier, Dryden, N.Y. 623.17
Slipped & fell—injured shoulder
Richard Jones, Granville, N.Y. 300.00
Crushed by cow—severe injury to hand
Donald Holdridge, Red Creek, N.Y. 1,081.00
Auto acc.—cut face, injured head, ribs, foot
Frank Schmidlin, Warsaw, N.Y. 100.00
Pinned between log and trailer—injured leg
William Avery, Troy, Pa. 531.13
Kicked by cow—internal & back injuries
Wileen Youmans, Mansfield, Pa. 240.00
Auto acc.—injured ankle, cut & bruises
Joseph Harnak, Union City, Pa. 140.00
Auto acc.—injured hand
Thomas Palmer, Englishtown, N.J. 2,050.00
Truck acc.—broke hip, concussion, injured spleen
Jean Brooks, Pemberton, N.J. 238.56
Pushed by cow—broke ankle
Sara Heinz, Cream Ridge, N.J. 367.00
Fell—fractured pelvis, bruises
Leon A. Wolejko, Sunderland, Mass. 856.53
Piece of steel flew in eye
Clifford E. Beals, Blaine, Me. 102.86
Horse jumped on foot—broke ankle
Stephen Cross, Colebrook, N.H. 128.00
Run over by truck—inj. foot, leg, hand
Curtiss Hathorne, Bethel, Vt. 114.28
Tractor rolled & hit ins.—injured back & shoulder

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New York CHECKERBOARD NEWS©

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AUGUST 1964

American Agriculturist





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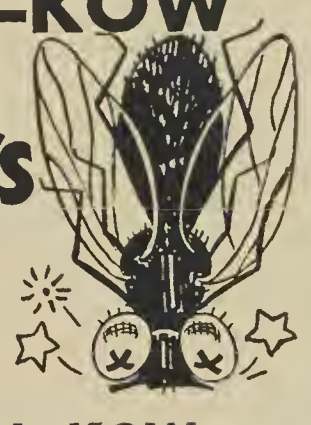
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American Agriculturist

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Founded 1842 Volume 161 No. 8

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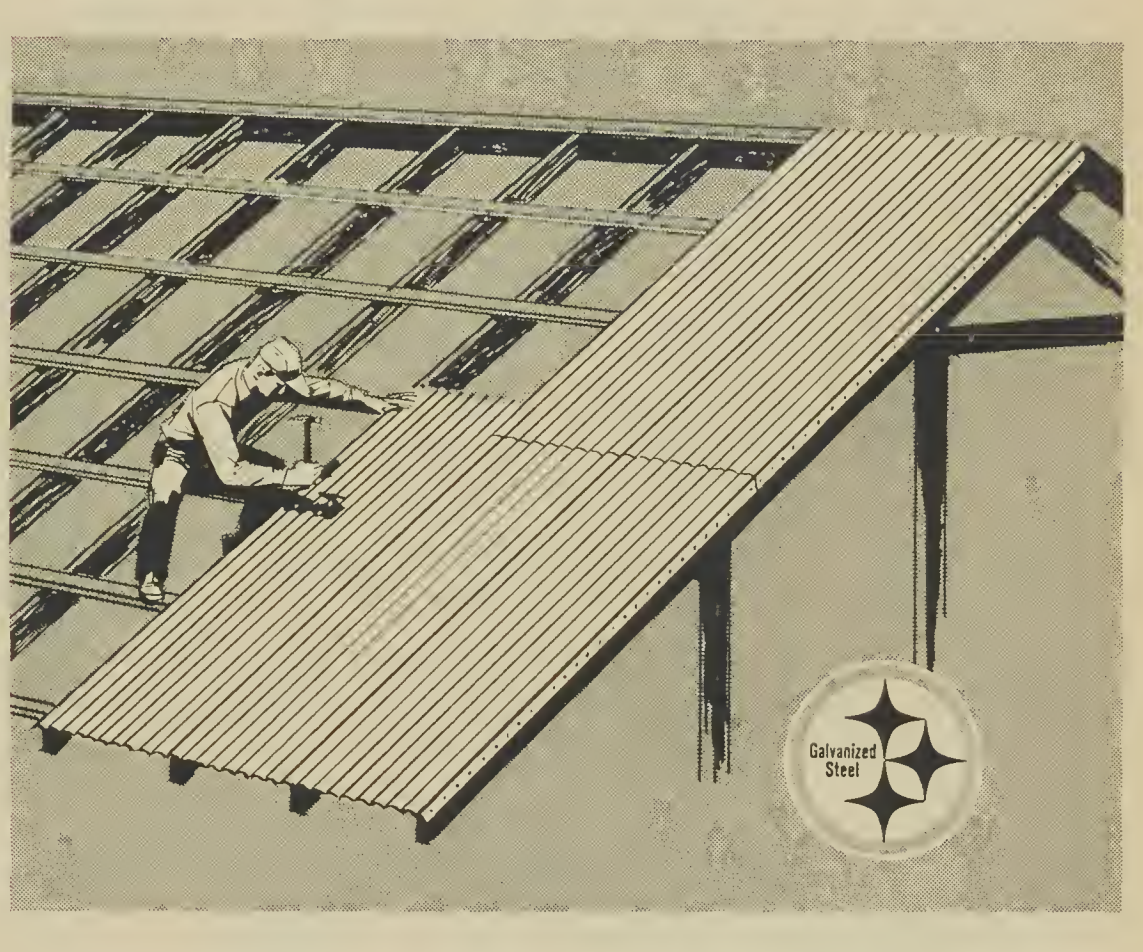
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OUR COVER

The most recent phase of the "agricultural revolution" involves lugging things — or rather not lugging them. The grunt-and-groan tradition is rapidly fading before the application of electric and internal combustion power. To see the latest equipment for farmstead and field, attend the Farm Materials Handling Exhibition on August 12 and 13 at the Humphrey Farm, New Hartford, New York.



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EDITORIALS

by GORDON CONKLIN



A LAZY MAN'S 23RD PSALM

Society is my shepherd; I shall not work
It alloweth me to lie down on a feather bed,
It leadeth me beside the still factories,
It destroyeth my ambition,
It leadeth me in the paths of a goldbrick for politics sake
Yea, though I walk through the valley of inflation and deficit spending
I will fear no evil, for the welfare agencies are with me
Their generosity and their staff they comfort me.
They prepareth the requisitions that filleth my table
By mortgaging the earnings of my grandchildren
My head is filled with mirth
That my cup runneth over without effort
Surely, the taxpayers shall care for me all the days of my life
And I shall dwell in the house of a parasite forever.

HIGHWAY SAFETY

A county road goes by our place near Trumansburg, New York — a road level and straight, just right for hot-rodding. Every now and then a group of boys pretending to be men use this road for drag racing. Too young or too unproductive to have a legitimate claim to the admiration of the folks around them, these rattlebrains proceed to prove that they can at least push an accelerator to the floor just as thoroughly as anyone who has hard-earned status in the community. As the tires scream and smoke — the engines howl and snarl — they achieve at last a feeling of importance, and quaff for a few moments the heady wine of power. By the way, I'll bet the tire and car repair bills are being paid by their parents!

There is a bad spot in the road a short distance west of the Conklin diggin's, so the boys choose to race farther up the road. At thirty miles per hour, this spot is easily and safely negotiable; at fifty, it tears off an axle. It has been repaired by the highway department several times, but fortunately it always seems to break up again (I have been tempted but plead not guilty). We — and our neighbors across the road — vote resoundingly to let it get worse instead of repairing it!

It has long been noted that the only sure way really to slow traffic down is to put a sharp hump or dip in the road. I have driven on many school grounds, parks, and corporate office areas where these "slower-downers" were built into the driveways, and proved very effective.

Over the years we have gotten used to having 40,000 people killed and 1,000,000 people injured every year in automobile accidents in our country. A holiday just isn't complete without the grisly prediction of highway fatalities by the National Safety Council! We have also gotten used to roads designed for higher and higher speeds — even though excessive speed is the greatest single cause of highway accidents.

Suppose we should consider putting humps or dips at intervals in the roads of the land to slow all of us down a bit? Or should we perhaps limit by law the horsepower in automobiles so we would have to drive more sanely? Should we really make the traffic laws hurt and give our police force a mandate to crack down on traffic law violators?

The annual death toll on the highways of our land is equivalent to the entire population of Jamestown, New York. Let's not accept this as the inevitable price of automotive "progress"!

INSECTICIDE FUSS

That dull roar you hear is not made by a cattle stampede; it's the debate over insecticides — especially whether endrin really did do in all those fish in Ol' Man River. The hue and cry has been fired up again; some folks are demanding that insecticides must go — and they don't mean go on crops being chawed up by assorted bugs, either.

Some of these folks, by the way, choose to ignore completely the evidence linking smoking and cancer, and they are undisturbed by the 40,000 deaths and 1,000,000 injuries caused every year by U. S. auto accidents. Guess this emphasis on food supply just proves that old saying that the way to a man's heart (or emotion) is through his stomach.

Now there are a few facts of life that should be made clear before some publicity-seeking assortment of politicians and do-gooders manage to scrap agricultural efficiency.

First, let's remember that agriculture in these United States is a highly competitive and enormously efficient industry — not a leisurely way to enjoy pastoral scenes for those who happen to like rural living. Our whole economy is cornerstoned by this productive industry and, if we are to continue to enjoy a high standard of living, we've got to win the struggle with bugs on food crops. The benefits of agricultural technology have accrued largely to the consumer, not the farmer — and the consumer stands to lose most if farm efficiency were lowered by prohibiting the use of insecticides.

Secondly, we must remember that the world has more gray than it does black and white. All too often people classify things as harmless or poisonous, not thinking that an excess of "harmless" materials can be toxic — or very small quantities of "poisonous" materials can be harmless. For instance, too much common table salt can kill (as it did those babies in a Binghamton, New York, hospital). Not long ago I was visiting with a neighbor who raises rabbits and he reported that too much of the essential vitamin D in some rabbit feed had killed many of them. Aspirin, vitamins, sugar — the list is endless of things used every day that can be toxic in excess.

Yet, a form of "rat poison" — an anticoagulant — is taken in small doses by many people who have trouble with bloodclots forming in their bodies. Pesticides exist that will kill insects, but small quantities will not harm man.

Farmers owe an enormous responsibility to the public, to their industry, and to themselves to use pesticides as directed on the labels. One irresponsible producer can cause untold problems for his neighbors by not following the rules.

But let's never forget we have a "hot war" to fight during the growing season every year. There are 1,000,000 different species of insects, and they have been around this terrestrial ball about 450,000,000 years — much longer than man. Over the aeons, insects have evolved into tough customers that are hard to kill.

If we're going to support ourselves in the manner to which we'd like to become accustomed — and help feed some of the hungry of the world — we don't have much choice other than to approach insecticide use with cool heads and a clear picture of alternatives and consequences. Yelling "fire" just to draw attention has no place in this situation.

BEYOND LINE FENCES

Our world is infinitely smaller than that of our ancestors, shrunken by jet planes, television, and radio from the dimensions of a planet to that of a large neighborhood. The wonders of modern travel and communications have made people everywhere aware of how other people live. This in turn has brought to pass the revolution sweeping the world — the revolution of rising expectations. Suddenly, people around the globe realize that it is not ordained that man shall live in want, bowed day after day with crushing toil.

My nine-year-old daughter is also gripped with rising expectations because several of her friends have horses. She wants a horse with a burning desire, but wants no part of Daddy's "old fogy" comments about sweating out the money for its purchase, about the day-by-day requirements of feeding and watering, of the responsibilities that are always a part of privileges.

The great question of our time concerns the response that will be made by that majority of the world's population not enjoying the wealth known in such countries as Canada, Australia, and the United States. It is the timeless temptation of man to add quickly to his possessions by pulling down those who have more, and in the process destroying for generations to come the very social and economic machinery that created the wealth he envied.

The productiveness of the "developed" nations did not come from some magic wand, or because they enjoyed some monopoly on natural resources. It sprang instead from a governmental structure guaranteeing the rights of property ownership and a social organization that harnessed the hopes and ambitions of the people, with an incentive system that rewarded them according to productivity. Undergirding it all were religious convictions that emphasized personal responsibility, the virtue of hard work, and the goals of human freedom.

Will those who "have not" be willing to endure the self-discipline and patience required to duplicate in their own nations the performance of the peoples toward whose abundance they look so longingly? Can they nurture their tiny gosling until it grows and begins laying golden eggs — or will greed push them to try to rip open the existing goose, destroying it in the process?

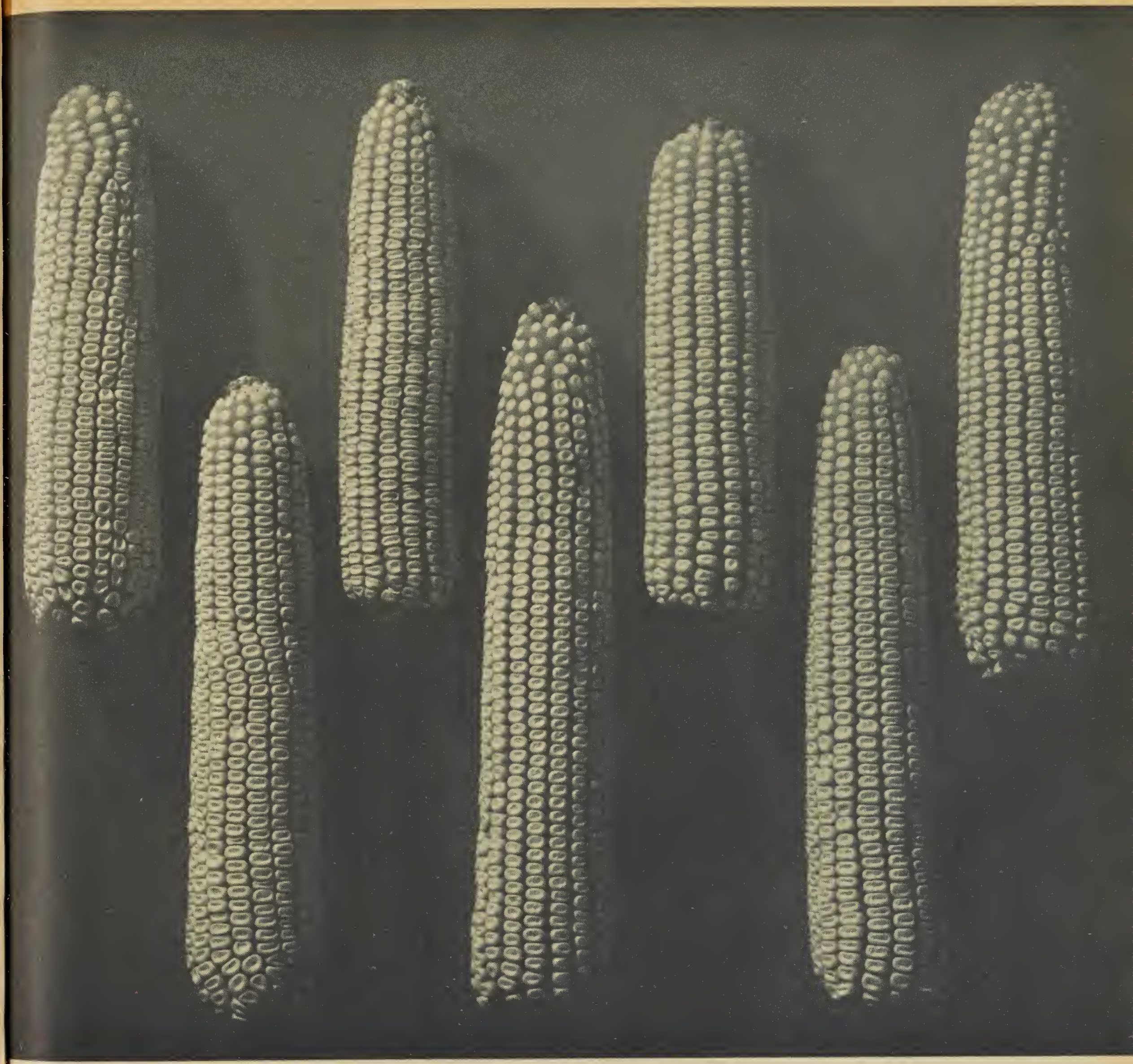
Would that the "haves" can combine wisdom and generosity more fully in lighting the torches along the path toward fulfillment of the rising expectations of a hungry world! Would that the "have nots" can understand the hard requirements — the sweeping dimensions of change — necessary for moving steadily along that path!

THE IRON FIST

As the evening shadows lengthened not long ago, I watched a pair of red-winged blackbirds fight savagely to drive off a grackle intent on having some blackbird eggs for supper. Watching, I mused about the hope of mankind for the day when nations need no longer be armed for possible combat.

It is true that war does not prove who is right, but merely who is left. Somehow, though, I would have to vote with Teddy Roosevelt in favor of walking softly, but carrying a big stick.

American Agriculturist, August, 1964



the new Agway:

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Corn hybrids from Agway, as part of Agway Complete Crop Programs, have broken Northeastern yield barriers wide open.

For grain, 100 bushels is the rule, not an exception for Agway 100-20 Club cooperators. And yields over 20 tons of silage are almost commonplace for these growers.

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Here's the actual on-farm results, over a three year period, as reported by 100-20 Club corn growers:

Maturity Group	Recommended Hybrids	Average Yields/Acre Grain bushels	Silage tons	TDN-lbs.
Short Season	Penna 290 & Mich 250	107	23	9,586
Early Mid-season	Cornell M-3 & Cornell M-4	115	24	10,307
Late Mid-Season	Penna 444 & Cornell M-10	103	23	10,081
Long Season	Indiana 654	108	27	13,299
Full Season	N.J. 8 & N.J. 9	113	28	12,927

Next year, join your Agway neighbor in getting greater net returns from your corn fields. Aim to top the 100 bushel and 20 ton goals. You can start now by ordering the right hybrids from Agway for your area.

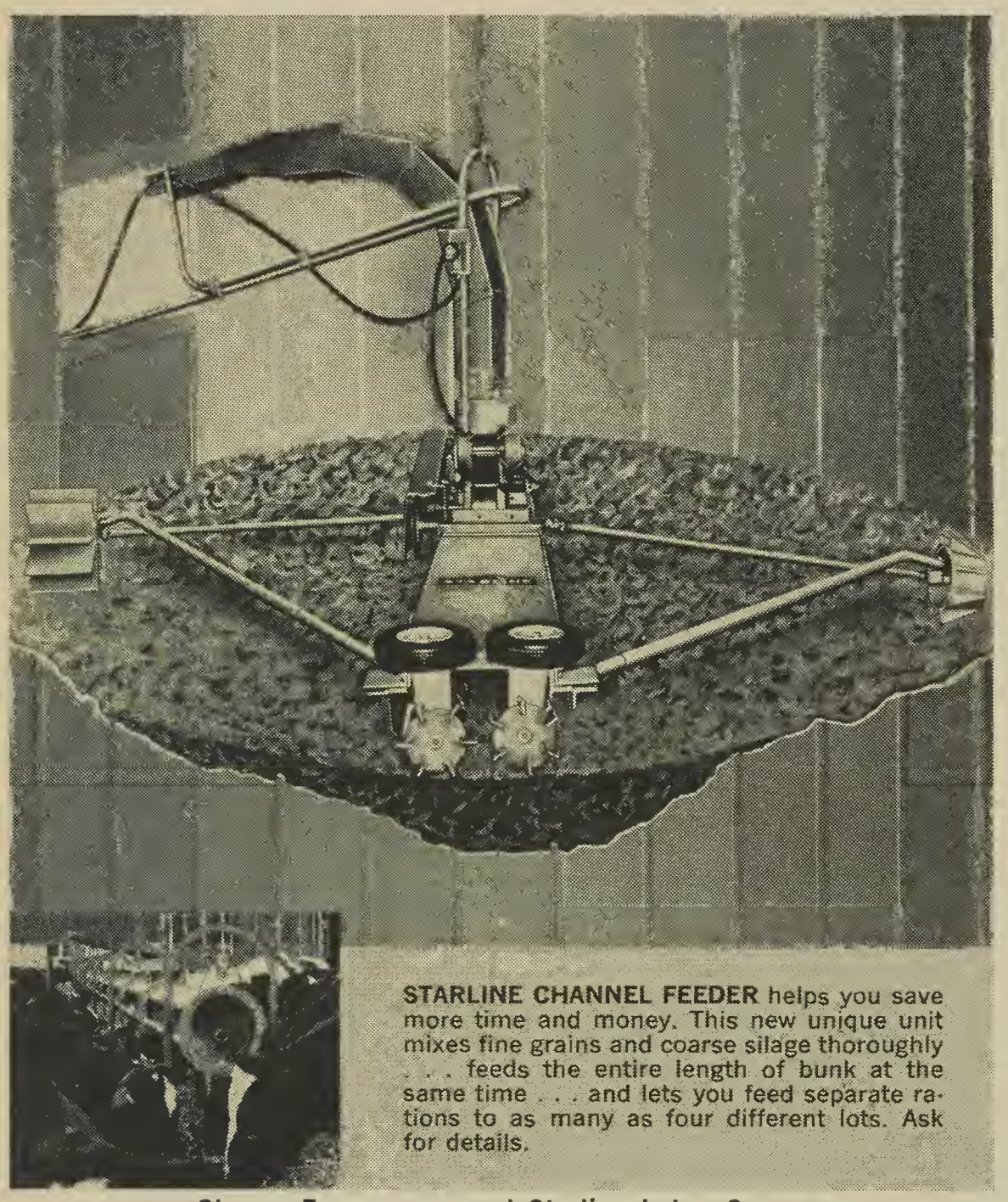
Talk with your Agway Seedsman today, ask him about the 100-20 results in your area. Visit these farms and see for yourself. Then order your hybrids from Agway and be sure you have the right selection for your fields next year. *Agway Inc., Syracuse, N. Y.*

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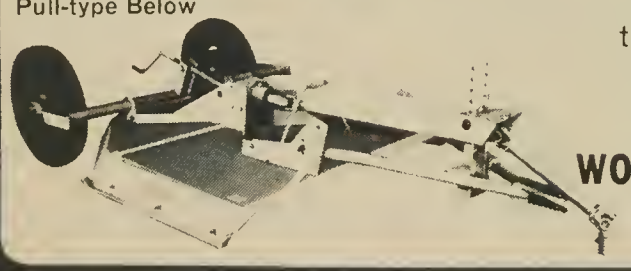
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FARM DOLLAR GUIDE

ECONOMIC CONSIDERATIONS IN RAISING DAIRY REPLACEMENTS is the title of a publication just issued by Cornell University. Included are sample contracts and bill of sale. Write Department of Agricultural Economics, Cornell University, Ithaca, N.Y. for Publication A.E.Res. 123.

The approximate costs of raising a heifer are: feed, 50%; labor, 14%; calf, 10%; other, 26%. In 1962, study showed these costs totaled about $300 for a 27-month-old heifer.

HIGH MILK PRODUCTION PER COW does not guarantee profits. Reporting on 1962 cost account figures, Professor C. D. Kearl of Cornell says that 8 out of 15 cost account dairymen having herd averages of 12,400 pounds or more showed a loss when all costs were included. The reason: production costs per cwt. of milk were high. Winning combination, of course, is high production at low cost per unit.

A TRACTOR SERVICE DEPARTMENT HEAD SAYS failure to replace oil filter frequently and to keep air filter clean are chief faults in farm tractor maintenance. Also, weighted tractor tires (needed only for plowing) lower gas efficiency.

SUPPLIES OF CANNED AND FROZEN FRUIT ARE LOW. In '63, for the first time, over half the country's production of vegetables was processed.

KEEP COONS AWAY from your garden sweet corn with an electric fence - one strand 12" and another 6" above the ground. Brer Coon gets shocking reception, goes rustles his own grub.

MITES continue to be one of most troublesome insect pests. Kelthane outstanding for control; other materials include Trithion, ethion, demeton, or malathion. Thorough coverage under leaves a "must."

USDA reports that ONLY 35% OF U.S. WHEAT GROWERS have signed up for the "voluntary" 1964 wheat program - 32.5% in New York State. The program puts drastic penalties on non-signers, yet a smaller percent signed than voted "yes" in May '63 referendum. All U.S. wheat production estimated 7% above '63 crop, but 3% below 1953-'62 average.

The Song of the Lazy Farmer



The trouble with most folks I know is that they think they dare not go away on a vacation trip for fear that things at home would slip. For instance, neighbor likes to shout that if his place should be without the head man's great intelligence, a million problems would commence. The fact is that his hired man, without a bit of trouble, can do ev'rything the boss can do and get it done much faster, too. So when I hear my neighbor grieve that he just can't afford to leave, I know it's 'cause he can't admit he'd not be missed a single bit.

I'm glad that I have sense enough to steer clear of that kind of guff; the minute I get half a chance, I leave without a backward glance and just forget about my chores while I am resting on the shores of some cool, quiet fishing lake, or maybe, for Mirandy's sake, hunt up a place beside the sea where she can rest all day, by gee. That way I get caught up on sleep and never hear a single peep 'bout laziness from my dear wife, I get a whole new lease on life while she stores so much energy, for months she'll do my work for me.

American Agriculturist, August, 1964



Ton-a-minute chopper from Allis-Chalmers

The 780 Forage Harvester will stand up to all the power you give it and come up smiling like the field-gobbling silage maker it is! Here's a machine with matched toughness and capacity to turn out more tons of top-quality silage in a day's work than ever before. Allis-Chalmers high-production design eliminates the apron, shortens the distance from sickle to cylinder.

Greater capacity of the row-crop 780 comes from a new feed system that uses four lower and two upper feed rolls, wide 36″ knives. Original "Cut and Throw" design of these six curved cutting knives eliminates need for any power-consuming extra blower. You chop uniform silage that stores and feeds at its nutritional best. You handle heaviest stands with real capacity. Let your Allis-Chalmers dealer put this 780 in your crop.

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Ronald Cotanch (left) and regional poultry agricultural agent George Earle check the progress of the latest batch of pullets.

STARTED PULLETS...

Slick chicks–or "for the birds" ?

Here's on-the-farm, and research information about a problem and an opportunity for poultrymen.

by Gordon Conklin

BUYING STARTED pullets has moved into the poultry industry like Grant took Richmond. As with anything else, though, the pullet grower and the egg producer need to be on the ball for this system to be mutually beneficial. Let's visit some Central New York poultry farms and see what men on the firing line are thinking.

Ronald Cotanch of Groton switched a few years ago from egg production to growing started pullets. He starts 14,000 in each batch and has a system of "all in – all out" so there aren't birds of different ages on the place at the same time. Birds go out at twenty weeks of age, so he raises an average of 2¼ batches per year when allowance is made for some time off, and the need to clean out buildings between batches.

"There's no more money in started pullets than in egg production," Ron says, "but at least we can get a short vacation every 20 weeks." By the way, Ron and his wife Elizabeth have a cottage on Cape Cod where they and their four daughters can go for a change of scenery.

Feed Biggest Cost

Most of the year the Cotanches are busy caring for their feathered charges right at home. The biggest single operating expense is feed (in fact, half of the total) – 75 cents per bird to 20 weeks of age. Their biggest single worry is piling up; members of the avian species just naturally seem to be rattle-brained when it comes to being scared. "Whenever we have a thunderstorm, I always go out to the pens," Ron says.

Growing pullets have 1.7 square feet per bird at the time they're ready to ship out. Ron hopes to cut this to one square foot per bird with insulation and bigger ventilating fans. In fact, he's already considering building a new two-story windowless poultry house for started pullets with complete environmental control. "I wouldn't consider it, though, without a pretty firm agreement with a reliable hatchery," Ron says.

His present arrangement includes close cooperation with a hatchery that in turn works closely with a feed company whose fieldman checks pullets at the Cotanch farm once a week. He is paid on a weekly basis at a specified rate per bird per week, plus a bonus at the time they're shipped out (½ cent per acceptable bird times the weeks the bird was in the pen). Ron remarks: "I wouldn't care much for being on my own and trying to sell started birds without being hooked up with a hatchery."

Ron comments that some egg producers think started pullet prices will go lower, but he thinks that prices for quality birds will be higher. He believes that in the future more started pullet growers will work directly with egg producers, growing replacements on contract.

Tom Todd of Dryden grows his own replacements for his 24,000-bird laying flock, believes it's worth at least 40 cents a bird to him for growing his own. "I never raised a really 'bad' batch of pullets, and never bought one I was completely happy about," is the way Tom puts it.

He starts 12,000 chicks twice annually on exactly the same dates each year. Because he sells eggs wholesale on a graded basis, he doesn't hold old birds for the last two or three months of lay when yield (percent of Grade A) drops. This means they aren't in production a full year, so Tom likes to put them in cages at 22 to 26 weeks of age and move them fast toward top production.

Since they are grown in obsolete laying-flock buildings near the present laying facilities, pullets spend only a half hour in crates when transferred. Tom finds this short stress, even with debeaking at the time of transfer, is more favorable than the many hours some started pullets have to spend in shipping crates. "Even if my present replacement-growing buildings were to burn or blow down, I'd build new facilities to grow my own birds," Tom comments.

Diversification

"Started pullets diversify my operation," Tom goes on. "It adds enough size to my enterprise to justify a full-time hired man, and gives us a chance to get away now and then." For proof, he pointed to a picture on the kitchen bulletin board of two friends and himself with eight lake trout caught only a few days before – ranging in size from nine pounds down to four pounds.

Like Ron Cotanch, Tom uses bottled gas to heat chick hovers, and finds it more desirable than any other method of heating. He believes that especially important in the raising of good pullets is getting birds up off the floor onto roosts; fans can then be turned on without being so closely regulated by temperature, and respiratory problems can better be controlled. He puts roosts in the pens when chicks are two weeks old, and finds 8 to 9 weeks of age is the critical time, when the transition is normally made from floors to roosts.

Piling up is a bugaboo; on a recent batch a window blew in one night and a stack of 300 dead birds next morning was mute testimony to the problem. On the Todd farm, just barely over one square foot per bird is allowed for pullets just before they move to the cages, but piling can take place even in cases where far more room is available.

Ed Meixell of Mecklenburg has 6,000 layers and grows 8,000 pullets at a time on rented farms. He, like Tom Todd, thinks of his started pullet business as a form of diversification; Ed sells about 10,000 started pullets a year. Because he was once a salesman for a commercial hatchery, Ed has many contacts among poultrymen.

Egg producers are contacted in advance to find out what they want grown – and how. One man who feeds scratch grain wanted his birds to get some of it beginning at about 10 weeks of age so they wouldn't be slow in adjusting to

(Continued on page 16)

Costs of Raising Pullets in New York State*

Item	Ideal Conditians		Average Conditians		High Cost Conditions	
Feed	18 lbs. @ 3.5¢/lb.	$.63	20 lbs. @ 4¢/lb.	$.80	22 lbs. @ 4.5¢/lb.	$.99
Chick	(1.1 x $.30)	$.33	(1.1 x $.35)	$.39	(1.1 x $.42)	$.46
Labor	2.5 min. @ $1.50/hr.	$.06	3.5 min. @ $1.50/hr.	$.09	5 min. @ $1.50/hr.	$.13
Buildings & equip.	18% of $1.50/bird	$.14	18% of $2.25/bird	$.20	18% of $3.00/bird	$.27
Other costs including brooding, medication, fuel, litter, electricity, etc.		$.05		$.08		$.12
Total Cost		$1.21		$1.56		$1.97

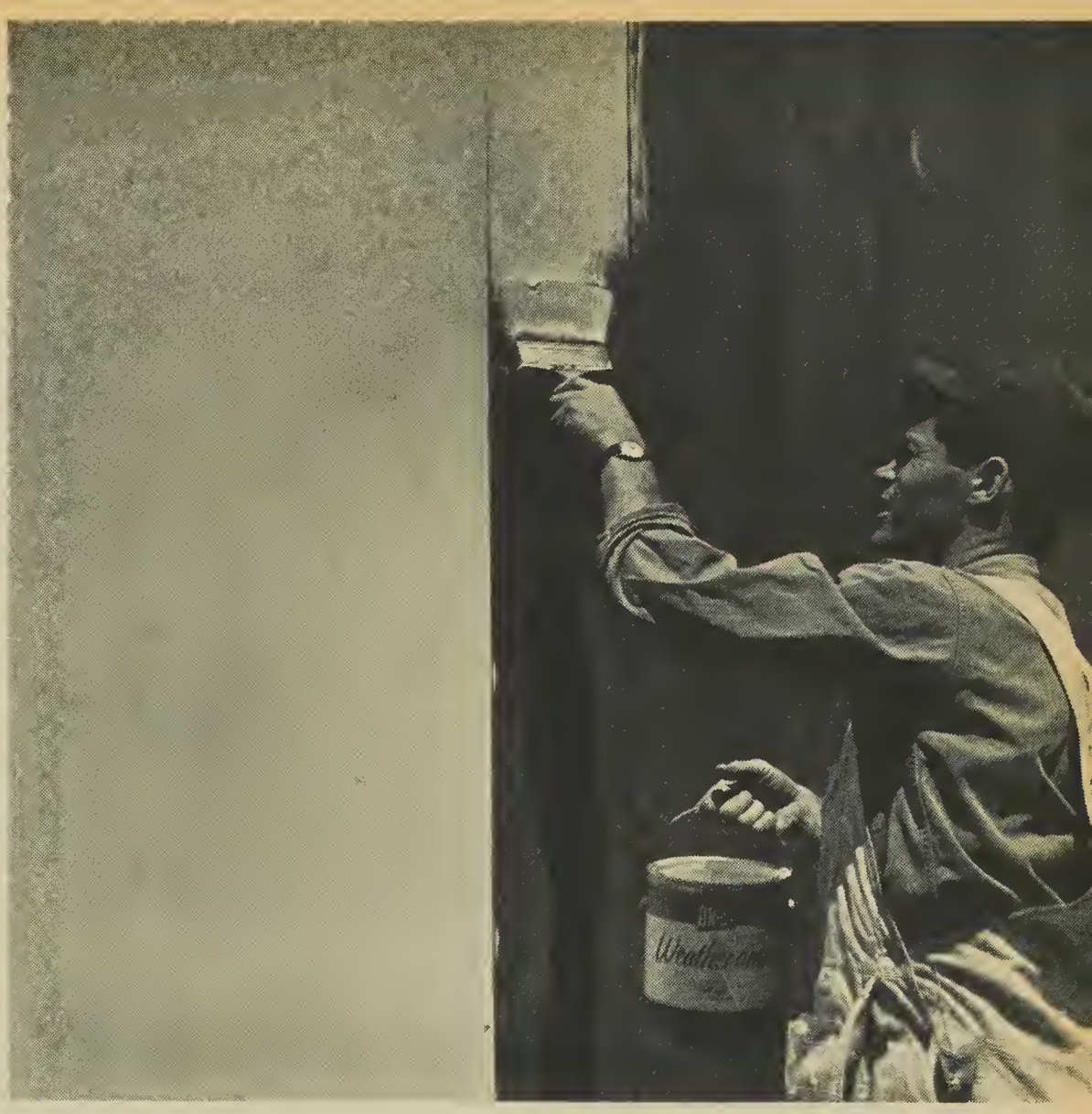
*Figures from Jonathan Tabey, Cornell University



Philip Chaffee is watched by a row of eager eyes as he guides a power feed cart along rows of newly-housed birds.



Emulsolin . . . even on damp surfaces . . .



goes on fast and easy — like latex paints . . .



penetrates and lasts like oil base paints . . .



but costs less than latex paint.

the new Agway:

Miracle-finish Emulsolin goes on like latex and stays on like oil paint

Emulsolin is Agway's new house paint that does the work of two for the price of one.

Like latex paint, it's fast and easy to apply. Even over damp surfaces. It dries quickly without dust, brush, or lap marks. Resists blisters. And tools wash clean with soap and water.

Like oil paints, Emulsolin penetrates deeply. Lasts longer. Any repaintable or chalky surface dries to a durable, flat finish with just **one** coat. No primer.

Because Emulsolin is water-reducible, you can paint early in the morning or late at night without damage from dew. Or, paint right after a rain.

Brush, roll, or spray on. For houses, barns, silos, fences, just about everything that doesn't move. Choose from 280 decorator colors.

Priced below latex paints. But Emulsolin does a great deal more.

See for yourself. Get new Emulsolin at your Agway store for easy and lasting beauty. Get Emulsolin today.
Agway Inc., Syracuse, N.Y.

QUALITY CONSUMER PRODUCTS

Agway

Created from
Eastern States and GLF

STARTED WHERE HE WAS

When I began testing I had a mixed herd of 23 cows with an average production of 7,000 pounds of milk. I bought six purebred Holstein heifers for $100 each, raised my own replacements, and production gradually increased. A year ago the herd was top DHIA herd in Vermont, with an average of 16,800 pounds of milk from 34 cows.



HENRY BUXTON

Around twelve years ago I did a little thinking and concluded that I would have to increase income some way. Keeping more cows would mean a new barn and more land. I decided I would see what I could do with what I had.

Artificial breeding was a big help in increasing production. I keep a good set of notes on individual cows, pointing out the weak spots of conformation. Then the inseminator studies them and uses semen from a bull he believes will correct the weakness. It has helped.

Feeding is important, but you have to have cows with the ability to respond to feed. Four years ago I bought a hay drier and started haying earlier, so hay quality was improved. We feed grain at a ratio of 1 to 4, with 30 pounds of grain per cow as the maximum.

There are 390 acres in the farm, but much of it is timber, with 50 acres of pasture and 70 acres of tillable land. However, we don't depend much on pasture; most of the feed is brought to the cows.

I keep a full-time man, but if I were younger my wife and I could take care of the work. You have to have equipment, but I have bought much of ours used, so the first owner had the heavy depreciation. We have a gutter cleaner, a bulk tank with transfer station, a flail forage chopper, and a full line of field tools.

I try to keep up to date on farming. I get soil tests every year and follow recommendations. One year we had some breeding trouble which was corrected by feeding Vitamin A.

We sell some stock each year, which adds to our income. My experience convinces me that it isn't essential for every dairyman to "get big." One man can take care of more cows than was once the case, and he needs to keep all he can handle well with modern equipment. I found, personally, that I could do a lot better with what I had. — **Henry Buxton, Middletown Springs, Vermont.**

Personal Farm Experience

The items on this page all come from the firing line of farm production.

BOUGHT ON CONTRACT

A little over 2 years ago I bought this farm on contract. It was the only way I could buy a farm. We were married when I was 20, and was farm manager of the Soldiers Home farm at Bennington.

I knew the owner of this farm was thinking of selling, and so looked it over and talked with him about it; later we came to an agreement. The owner, Mr. R. G. Whitman, was a good farmer. The farm is 325 acres, with 165 tillable. There was a good herd on it, which was important in that it gave me an income right away. I have 40 milkers and 34 head of young stock, and I do all the work except for a boy at times.



CARL FULLER

I should add that I worked for Mr. Whitman on the farm for a year before I bought it, which gave me a chance to learn the farm and the cows. I haven't made many changes, but did put in a gutter cleaner, built a pole barn for heifers, and am growing more alfalfa. I have no regrets over buying; glad I had the chance. — **Carl Fuller, West Shaftsbury, Vermont.**

DAIRY BEDDING

We use old hay or straw for our 100 head of cattle (60 milkers). Each bale is run through an old ensilage cutter that has a high-speed table, cuts bedding in about four-inch lengths.

On one farm, it's blown into an old roofed wood silo for storage, on the other farm we have a bedding storage space in the stable. Sometimes we run a whole season's bedding supply through the cutter as one job.

Much of it is hay spoiled by rain; we have even bought standing hay on occasion. There has been no special weed problem as a result of using hay.

We like chopped hay or straw because it seems to have more absorption than unchopped material; it spreads easier, and the baler twine is removed so it's no problem. Also, if we have to pile manure during a bad winter, it's easier to use a front end loader than if straw were long.

Bedding is carried around in a device similar to a silage cart and put on once a day, then shaken up after the night milking. It's cheap injury insurance, so we use lots of it. Curbs between cows seem to make it last a bit longer. — **Howard Hutchinson, Heuvelton, New York.**

A THREE BROTHER PARTNERSHIP

We three brothers started farming as partners without a written agreement fifteen years ago. We farm 500 acres (300 tillable) with 60 milkers, which we hope to increase to 80. In addition, we keep 3,000 hens and make about 500 gallons of maple syrup a year.

We get along fine. When there's a problem we talk it over; we don't always agree 100 percent, but we always come to a compromise that suits all of us. It may be that three brothers not too different in age can agree better than a father-son partnership.

Fifteen years ago we had 30 cows and no hens. We did some custom work to add to income, and one of us trucked milk to a milk plant. Each of us has a teenage son, and they help some. We hire no help, and keep the feed bill low by raising about half the grain for the cows.

We have done some ditching every year, draining wet spots. We figure that a drain that permits us to grow alfalfa will pay for itself in a year. — **Walter, Warren and Morris Taber, Eagle Bridge, New York.**

SOIL INSECTS

I have been more or less conscious of worms in the corn field for a number of years, but never so much as in 1962. My first experience with them was away back in 1929 when I bought a farm from an old-timer who kept a field in timothy hay as long as it produced what he called a "reasonably good" crop. I decided to make five fields into one and plant corn. When the crop matured, the fields that had been plowed up fairly recently had about 80 percent stand; the old sod did not have over a 30 percent crop due to soil insects.

At that time we did not have present-day chemicals, so if I had an old sod I plowed it in the fall. Over the years we used a rotation with hay down only one year, so worms have not been too much of a problem.

About the year aldrin came out I added a piece of my permanent bluegrass to an adjoining corn field. On the strength of advertising, I used aldrin and had a perfect crop.

In 1962, son Jim plowed up an old bluegrass pasture for the first time. Expecting worms, he sprayed it with one of the soil insecticides (aldrin and heptachlor do an equally good job as far as I can see). As a result he had 22,000 plant population from 25,000 seeds.

His field was far at the top in the county yield, with 157 bushels shelled corn per acre. My field, planted in corn after corn (which I know now is conducive to worms), with all other practices the same except no worm killer spray, had only an 18,000 plant population and a yield of 107 bushels. — Hugh Fergus, Slippery Rock, Pa.

FEEDING IN CAGES

When I decided to build a house for caged layers, the method of feeding them was one problem to be considered. After studying the situation, I chose a motorized feeding cart instead of an automatic feeder. The cart is filled from a bulk bin, and as I ride the cart feed is delivered to two tiers of cages.

My reasons for the cart include: (1) a lower initial investment; (2) lower upkeep; (3) the chance to spot any trouble as the hens are fed. I carry several clothespins on the cart and mark cages where hens need attention, or where perhaps the waterer isn't working properly.

It may take a little longer to feed this way, but the added time is more than balanced by the lower investment.

We have 10,000 hens in cages, and it takes about 5 hours a day to care for them. Washing, grading, and packing require some extra help — **Roger Bennett, Ithaca, N. Y.**



Roger Bennett likes this automated feeding cart that feeds two rows of caged layers at a time.

DON'T FORGET!

Farm Materials Handling Exhibition on August 12 and 13 at the farm of George and John Humphrey, New Hartford, New York.



With Ford Select-O-Speed, you power shift up or down, **on-the-go,** matching tractor power and speed **exactly** to the work being done . . .

HOW'S YOUR TRANSMISSION I.Q.?

How well do you know farm tractor transmissions? Cover the answers on opposite side of the page and test your I.Q. on the following questions:

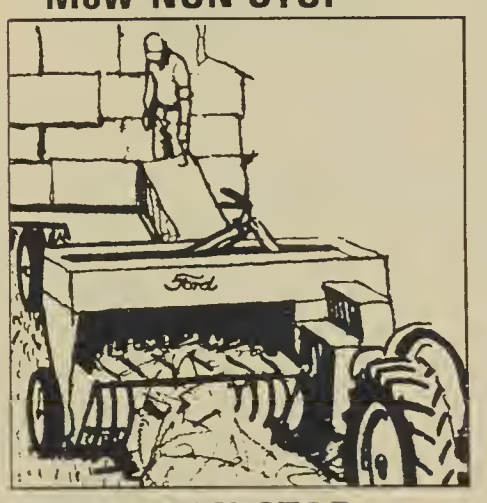
1. How many farm tractors have automatic transmissions?
2. How many types of power-shift transmissions?
3. How many with full-range power shift?
4. How many with hydraulic torque converter?
5. Which transmissions eliminate need for clutching in normal field work . . . let you shift non-stop while keeping PTO speed constant?
6. Which was the first full-range, power-shift transmission?
7. Which transmission best fits your needs?



Plow NON-STOP



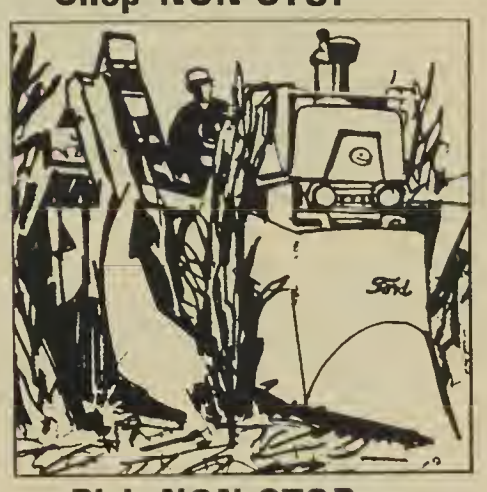
Mow NON-STOP



Bale NON-STOP



Chop NON-STOP



Pick NON-STOP

PRODUCTS OF Ford MOTOR COMPANY

NEW YORK WORLD'S FAIR — Ride the Magic Skyway — FORD MOTOR COMPANY WONDER ROTUNDA

ANSWERS

If you're confused, you have company. Two or three "right" answers make you a standout. So, because the right transmission is so important to efficient tractor operation, let's set the record straight:

1. There is no truly automatic tractor transmission. Such a transmission would not be desirable for most tractor work because the operator must select the gear that matches engine power and tractor speed to the work being done.

2. There are two types of power-actuated gear shifting devices. One type power-shifts only between direct drive and underdrive in any pre-selected gear. Shifting to low range reduces tractor speed as much as one-third. Any other change in tractor speed requires the operator to clutch, stop, and shift manually. The other type is the *full-range* power-shift transmission. The operator selects any desired gear by moving a convenient lever; hydraulic power does the actual shifting.

3. Only two manufacturers currently offer full-range power shifting . . . and only Ford Select-O-Speed provides *10* forward speeds. With Select-O-Speed you can shift up or down, on-the-go, to *any* of these 10 speeds. Because speeds in the field work range are closely spaced, non-stop downshifting one or two gears usually provides the extra "oomph" you need in a tough spot, with only a small reduction in tractor speed.

4. Only one. When the load increases the hydraulic torque converter slows the tractor to increase pullpower. For faster speeds than first selected or with the converter locked in direct drive, manual clutching and shifting are required.

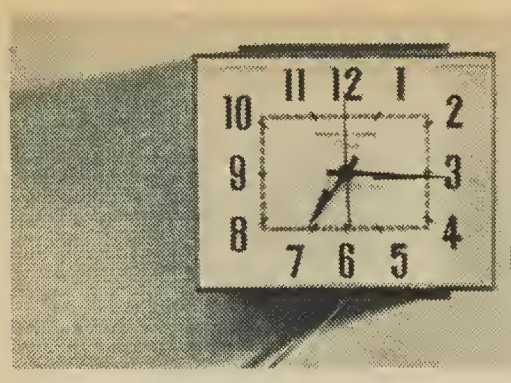
5. Only full-range power shifting, as with Select-O-Speed, eliminates *all* need for stopping and manual clutching in normal field operations. Ford Select-O-Speed also makes possible non-stop gear shifting while keeping the PTO at rated speed; provides for ground-drive PTO; and allows high-speed PTO drive for stationary equipment such as water pumps, feed grinders, etc.

6. Ford introduced the first full-range power-shift transmission more than five years ago. Select-O-Speed reliability is now proved by more than 60 million hours of use.

7. Only you can decide. But we believe that Select-O-Speed is your best choice in "advanced" transmissions. Its all-gear power train gives top efficiency, its on-the-go shifting conserves time and fuel. Tens of thousands of pleased owners will tell you of its convenience and dependability. It is the only full-range power-shift transmission available in a 2-3 or 3-4 plow tractor, as an option on the Ford 2000 or 4000. And it's standard equipment on the powerful 5-plow Ford 6000.

For further details, see your Ford tractor dealer, soon!

FORD



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.	Utica	WBVM	1550 kc.
Olean	WHDL	1450 kc.			

Northeast Radio Network

Ithaca, New York

COFFEE CAKE WINNERS

by Augusta Chapman, Home Editor

Ever since January 1 in Grange Halls throughout New York State, luscious looking (and smelling) coffee cakes have been lined up in rows, to be judged in the 1964 Coffee Cake Contest, sponsored jointly by American Agriculturist and New York State Grange. Contestants at Subordinate and Pomona levels have vied for honors, and winners of the 53 county contests will compete for valuable household equipment and grocery prizes at the finals in October. These will be held in Rochester during State Grange Session.

At many of these Granges, the coffee cakes were served for refreshments following the business meetings, and I know from attending our Subordinate Grange meeting at West Danby and the Tompkins County Pomona contest how awfully good they tasted, along with a cup of hot coffee!

We now have names of winners in 20 county contests, and additional names are coming in every day. Here is the complete list of Pomona winners to date:

POMONA WINNERS

COUNTY	GRANGE	WINNER
Allegany	Belfast	Mrs. Elnara Michael
Chemung	Chemung	Mrs. Linda Freeman
Cartland	Hamer	Mrs. Myrta Farbes
Essex	Whallansburg	Mrs. Arline Leaning
Franklin	Malane	Mrs. Marian Dumant
Jeffersan	Champian	Mrs. Mildred Fleming
Lewis	Turin	Mrs. Godfrey Regetz
Madisan	Owahgena	Mrs. Larenza Niles
Oneida	Seifert Carners	Mrs. Margery Hyatt
Onondaga	Baldwinsville	Mrs. Paul Huntingtan
Oswega	West Manrae	Mrs. Frances Dunham
Putnam-Westchester	Cartland	Mrs. Bessie Nevin
Schuyler	Burdett	Mrs. William Elkins
Seneca	Ladi	Mrs. Lena Burdin
Steuben	Waadhull	Mrs. Meribah Symands
Tiaga	Berkshire	Mrs. Margaret Lynch
Tampkins	Lansingville	Mrs. Betty Fedarka
Ulster	Miltan-on-Hudsan	Mrs. Edith Clarke
Warren	Jahnsburg	Mrs. Venelia Waddell
Yates	Guyanaga	Mrs. Bessie Mashier

Along with their reports, some of the Pomona Service & Hospitality chairmen include interesting facts about their contests or winners. Following are quotes from their reports.

Mrs. Audrey Boyden of Cortland County writes, "Myrta Forbes is a farmer's wife and has been an active member of Homer Grange #834 since 1924. She helped organize a Homer Juvenile Grange and has held several offices in her Grange. She became a member of National Grange in 1930. She has always been interested in baking, particularly yeast breads."



Phata: A. G. Tarby

CAYUGA COUNTY Dairy Queen, Anne Littlejohn, is crowned by 1963 Queen Christine Schmitt at the Farm-City Dinner in Auburn, N. Y., on June 13. Anne is the daughter of Mr. and Mrs. Orville Littlejohn of Union Springs. Others in the picture are left to right: senior attendant, Vivian Campbell; junior attendant, Susan Smith, and crown bearer, Kathy Baker.



MRS. L. NILES
Madisan Caunty



MRS. M. DUMONT
Franklin Caunty



MRS. M. FORBES
Cortland Caunty



MRS. G. REGETZ
Lewis Caunty

From Essex County, Mrs. Nelson Hyatt tells us, "Our judges were an Home Economist and two former Pomona S. & H. chairmen. They felt that all entries were very good, and all seven were given a score of 90 or over. Our winner received 99."

The Franklin County chairman, Mrs. Howard Dunn, says of their winner, "Marion Dumont is the mother of two sons, one attending Canton A.T.I and the other planning to start a pre-med course in September at LeMoyne College in Syracuse. She has been a Juvenile Matron, is a 7th degree member, and will soon be a silver star member. She is always ready and willing to do anything she can to help promote the Grange."

Mrs. Erma Bullard whose husband was elected Madison County Deputy at the same Pomona meeting when the coffee cake contest was held writes, "Mrs. Niles has belonged to Cazenovia Grange for over 25 years. She takes part in all Grange activities and was Pomona Treasurer for a long time. She lives on a dairy farm, is friendly and likeable, and very active in her Baptist Church. She also won our Pomona sewing contest and placed 10th in the State."

Mrs. Mildred Nelson of Oneida County says, "We had 13 entries in our coffee cake contest, and every one looked lovely. Some were very fancy, and one was made from the Brer Rabbit Molasses recipe which appeared in American Agriculturist. We sold the coffee cakes after the meeting and made $9.00."

Schuyler County chairman, Mrs. Marian Gould, tells us, "Our winner is the wife of an attorney. She is the mother of five children and active in P.T.A. and church work. Some of the Subordinate Granges have had gentlemen act as judges, and we also had one as a judge for our Pomona contest."



5 tons in 3 minutes

You can shred and spread a mountain of manure in a molehill of time with a sure-footed John Deere 44 PTO Spreader

You get things done when you go to work with a John Deere 44 Spreader. This 185-bushel two-wheeler totes 10,000 pounds of manure each trip. Empties completely in 3 minutes — or in 4 minutes if you want to spread a little thinner.

The 44 is built to haul heaping loads over rough, frozen cornfields and it's balanced to hustle down the highway at fast transport speeds. It turns short and backs easily. It's as maneuverable as many spreaders half the size.

The conveyor and beaters are PTO-powered and individually rope-controlled from the tractor seat. Snow, rain, and mud won't sideline this sure-footer. It goes anywhere a tractor pulls it and unloads completely.

You can equip a 44 Spreader with a single combination beater-widespread or with a finer-shredding triple-beater. With either beater, you can spread a wide, uniform carpet of manure at just the rate set.

Your John Deere dealer has a lot more to tell you about the 44 — and his other PTO- and ground-driven spreaders. Be sure to ask about the convenient John Deere Credit Plan.

JOHN DEERE
Moline, Illinois

Choose from The Long Green Line of John Deere Manure-Handling Equipment

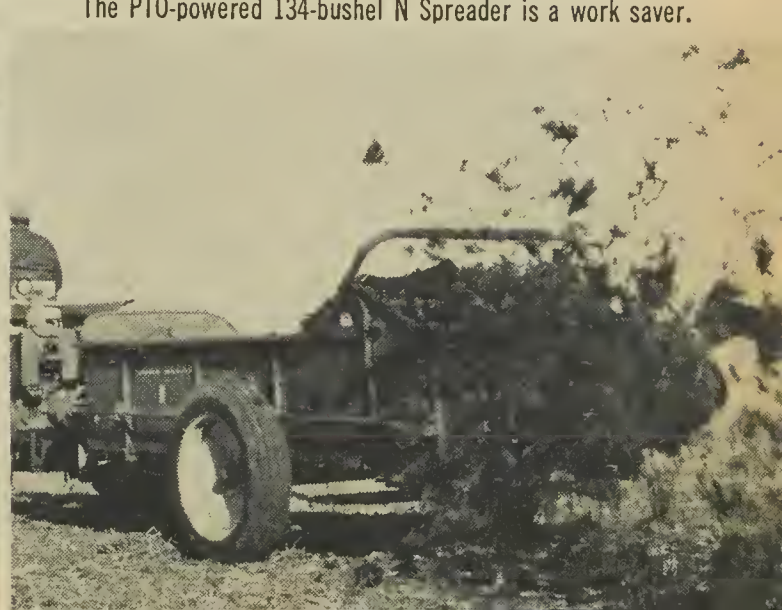
The ground-driven R Spreader totes 95 bushels.



The 139-bushel 33 Spreader is extra-low, extra-wide.



The PTO-powered 134-bushel N Spreader is a work saver.



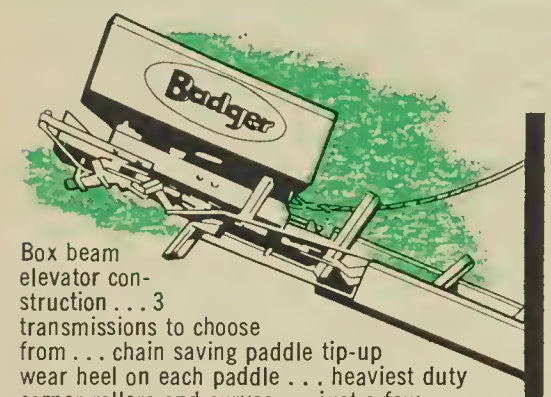


AMERICA'S NO.1 BARN CLEANER

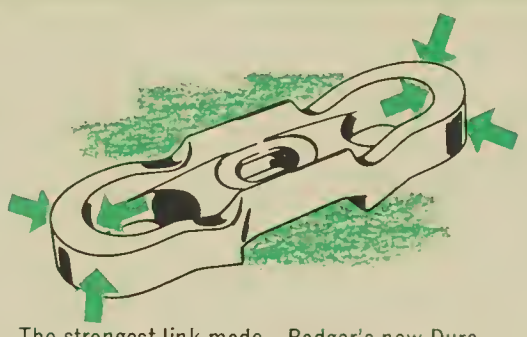
20,000 IN USE EVERY DAY

Every day, all winter, 20,000 Badger Barn Cleaners do their job with hardly ever a hitch. Their fame has spread until today, no other brand is installing more new barn cleaners than Badger.

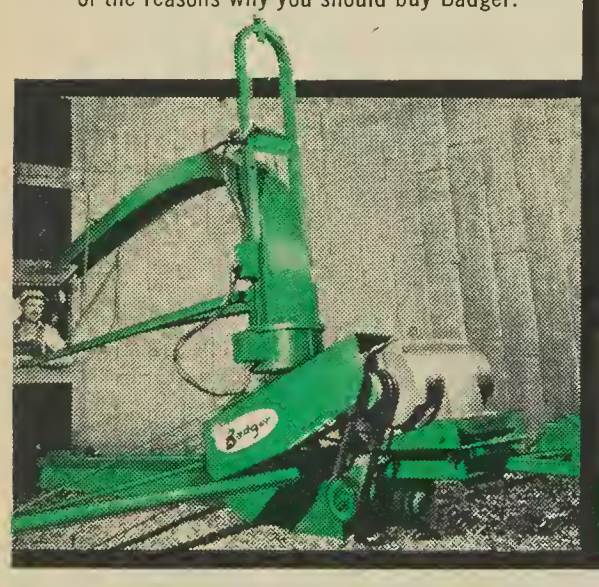
There are two reasons for this—(1) unbeatable barn cleaning, (2) Badger Dealer service. Badger's go on cleaning long after other barn cleaners are replaced. And your Badger Dealer is close by and competent. He knows how to lay out a cleaning system, install it and keep it running. Today, Badger is America's No. 1 Barn Cleaner.

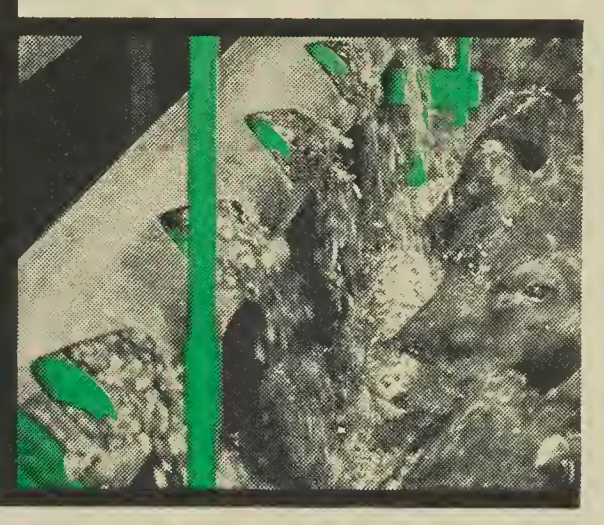


Box beam elevator construction . . . 3 transmissions to choose from . . . chain saving paddle tip-up wear heel on each paddle . . . heaviest duty corner rollers and curves . . . just a few of the reasons why you should buy Badger.



The strongest link made—Badger's new Dura-Forged chain. Beefed up to take extra pin wear inside, extra shoulder wear on the outside. And it's just one of 3 great Badger chains. There's one just right for your barn.





WORLD'S NO. 1 SILO UNLOADER, TOO—MORE IN USE THAN ANY OTHER

Thousands of dairy and livestock men, just like yourself, have proven the workhorse dependability of the Badger Silo Unloader. Your Badger will loosen tough silage, even when it's frozen in several feet.

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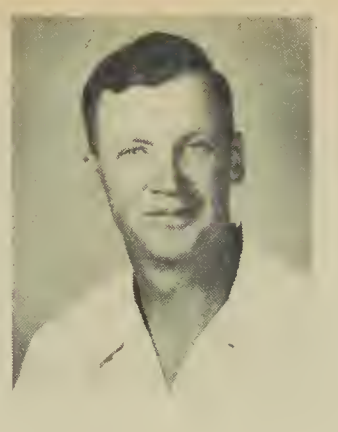
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Gayway Farm Notes

by HAROLD HAWLEY

AA

HAYLAGE OR BALES FIRST?

There seems to be some difference of opinion as to whether it's better to fill the silo with haylage first, then bale, or vice versa. This being our first year trying to make haylage we are in no position to be expert on this point.

As a matter of record, we did the haylage first, figuring that the weather might be more favorable for baling after we had finished filling silo. The other consideration was to get the early-cut hay in the silo where it would be available to the milkers. The bales will mostly be used for dry cows, young stock, and for sale.

Some have suggested preferences for baling first, then filling silo. However, others were going to direct-cut their hay for the silo, and thought that cutting later would get rid of the wet, sloppy, sour conditions sometimes associated with early direct-cut legume silage.

For our first try at making haylage, we have mostly played it a little safe by keeping the moisture close to 60%. We know from experience that we can keep grass silage, so see no risk in partially-wilted hay.

The windrower is a great tool for this job. We feel much less apprehension about stones in the hay as we pick it up behind the windrower. They used to be a headache when they got rolled into the hay when we were raking it into windrows for grass silage.

We bought a couple of self-unloading wagons this year and feel they are a real good investment. In fact, silo filling became so downright easy we began to dread finishing and being faced with baling. How lazy can one get? However, this being lazy pays off pretty good; two of us made a lot of silage in a day as long as we didn't have to haul it too far.

DIRECT CUT VS. PICK-UP

Whenever we have travelled in the West we have been impressed by the fact that an awful lot of the grain is windrowed first to allow the green stuff to dry out. Then it is handled into the combine by a pick-up head. Clean grain is much easier to get this way. Our combine does not have a pick-up head, but if it did I think we would handle our grain that way.

The grain could be cut a little earlier, saving some shattering and shelling loss. The wheat could be cut lower than we do with the combine, and the straw would still go through much easier after it had cured out for a couple of days. The new seeding cut off with the wheat would be no problem once it had wilted down.

The net result would be more straw, cleaner grain, and the automatic removal of most of the stubble, which some people seem to feel is important. We'll not do this until we change combines — at which time we will price a pick-up head.

CHURCHES, CIVIL RIGHTS, AND COMMON SENSE

There need be no confusion about my stand on civil rights. I'm in favor of equality of educational opportunity (which means to me our kids go to school in the natural local district, not across the city to "balance up" a racial pattern) and of removal of all barriers as far as church membership goes. I see no cause for segregation in transportation or employment. I'm just not hypocrite enough to say that all neighborhoods should be opened up to every person of every race unless and until the present residents are ready to accept the newcomers.

In common with almost everyone with whom this has been discussed, inter-racial marriages just do not make sense to me. I suppose this attitude marks me as falling way short of regarding everyone as my fellowman. So be it, if that is the proper interpretation. Actually, haven't all of us always been guilty of family pride, etc., which prompted us to be "choosy" in selecting a mate? Maybe this has been wrong too, but maybe it's just as wrong to advocate something for others which we aren't yet willing to accept for ourselves.

There can be no doubt that we have failed to make satisfactory progress toward integration over the last hundred years. Equally true is that we haven't solved a whole host of other social and economic problems. Now we seem bent on catching up all in a couple of years. This just doesn't work. Laws may solve a few problems. Attitudes on the part of members of all races will have to change a lot before the desired ends are accomplished. This will only come with education, with Christian love, and with the acceptance of responsibility and privilege.

My gripe at the moment is that too many of our church leaders seem to be all hepped up to join in a demonstration or sit-in or something. If attitudes are to change somebody must assume some leadership responsibility. Our clergy who seem so stirred up about the whole racial issue might do more good at home than they do at demonstrations. Too many

(Continued on next page)

demonstrations come to have the characteristics of mobs and of pressure tactics. I prefer to see legislation stimulated by calm deliberation rather than by hysteria and too much haste.

It's a basic Christian philosophy that you do unto the other fellow as you would that he should do unto you. Would we really welcome people from the South or anywhere else moving into our communities to tell us how to solve our problems? From where I sit it seems there is more tension, fear, and hate now as a result of all this haste. We certainly can't solve racial tension overnight any more than we can solve some of our other vexing social and economic sore spots in a big hurry!

BOYS AND CARS

If you've a teenage boy in your home you will appreciate how impressed I am at my own ignorance about cars and how much young people know about them. At anything up to a quarter mile they'll tell you the make, year, model, and like as not throw in some assorted facts about size of motor, options, etc.

There was a time when I could spot a Ford or Chevrolet afar off — but no more; the lines are too similar. Then when they get close enough for the name to be read, it turns out not to say Ford or Chevrolet or whatever, but Galaxie or Thunderbird or Corvair, or something. It gets beyond me to remember whether a Lark is part of the Dodge family — or perhaps that is the Valiant.

The explanation is simple. The teenager reads, talks, and thinks cars. To most of us a car is transportation; to them, to have a car is status, date bait, freedom — a symbol of growing up. It is a goal and an end in itself.

All the statistics show that these same young people have more accidents than average. I'm not about to question the figures; they are likely all too true. However, under ordinary daytime driving conditions (without a cargo of distractions such as other teenagers) these young people are mostly good drivers. I feel much safer with these quick reacting, alert youngsters at the wheel than with some oldster not much aware that the rest of the world is also on wheels.

The big problem is that the youngsters can and do drive with the best of the adults when they are with adults and in a normal situation. Give them a couple carloads of other youngsters with a little desire to show-off and compete, plus the stimulus of youthful enthusiasm and a lack of experience, and presto — with or without alcohol you have the makings of another gruesome statistic.

We know one gal who flatly tells her boy friends how they shall not drive — or they go without her — and it works. Naturally, the guys are seeking her approval, and she makes it pretty clear that fast, reckless driving earns them no starry-eyed adulation from her.

PICKING THE WINNER

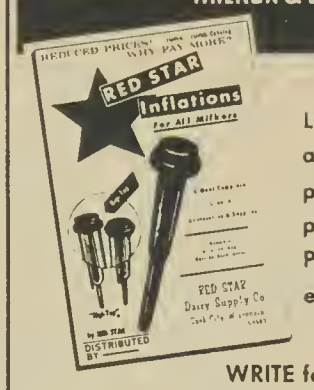
It's quite obvious that some have decided that I'm old and harmless. This conclusion is based on the fact that an invitation was tendered to help judge the girls in the Dairy Queen contest in Ontario County.

Son Bruce (a college senior) thinks this is more down his alley, but we pointed out to him he likely won't be asked until it is years too late to do him any good. Naturally, the advice one gets in preparing for such a job is all useless — or worse. Doris (my wife) admonishes me, "Don't squeeze the tomato." What kind of advice is that?

BUG BULLETIN

An interesting and attractively illustrated bulletin issued recently by the National Sprayer & Duster Association is entitled "Outdoor Housekeeping with Sprayers and Dusters." It will help you to select the best material for the job, explain where dust may be better than a spray, and vice versa. The second half of the bulletin comprises a glossary that explains the type and working of various sprayers and dusters, together with safety tips. Write for a copy to National Sprayer & Duster Association, Department AA, 410 North Michigan Avenue, Chicago, Illinois 60611.

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DEALERSHIPS AVAILABLE IN SOME AREAS

Started pullets . . .

(Continued from page 8)

his feeding methods.

Bottled gas is used for brooding; Ed thinks that oil brooders keep the room warmer, but prefers a cooler room so chicks will "harden off" faster. He tries to get poultrymen to debeak started pullets at their own farms, but if birds are going into cages, Ed does the debeaking four weeks before delivery to minimize stress.

At 17 days of age, a vaccination material for coccidiosis, Newcastle, and bronchitis is put in the drinking water, and then a coccidiostat as a feed additive keeps that infection from running away. "Damp litter brings a buildup of infection, and we have to go in with a preventive-level of medication; too dry litter prevents the coccy-vac from doing the job," says Ed. At 16 weeks of age, birds get a Newcastle-bronchitis booster — again in drinking water.

A down payment equal to the cost of the chick is required in advance from purchasers. Ed believes that egg producers should be on a specific program with a pullet grower rather than buy from here and there on a hit-or-miss basis. His opinion is that more egg producers will grow their own replacements in the future — to get multiple ages needed to have a mixture of egg sizes, and to save the 40 cents per bird paid to someone for the labor and overhead costs of growing pullets.

Broilers to Pullets

Three years ago, Ralph Ward of Odessa dropped broilers from his farming program and went 100 percent to starting pullets. He has room for 12,000 birds at 20 weeks of age (1.8 square feet per bird) when delivery time rolls around. Ralph's operation is integrated with a feed company that pays him a fixed price per bird per week.

"Integration is a way of life for many poultrymen," he says. "In 1959, I raised the last batch of pullets on my own and sold them myself. I sold at cost — and then waited five years before they were all paid for. No such problems under my present arrangement!"

Ralph uses an oil furnace and hot water that heats the floor and hovers. His vaccination schedule includes Newcastle and bronchitis in the drinking water at 1 week, 4 weeks, and 4 months of age, but he uses a medication against coccidiosis without vaccination.

Chicks are debeaked when one day old, and again when they go in laying houses after being shipped. He has had several different strains of birds in his house at one time, but doesn't like this because they vary in resistance to leukosis, and the most susceptible strain can infect the rest.

Grower and Purchaser

Philip Chaffee at Van Etten has room for 22,000 layers in full stair-step cages. He grows some pullets for other poultrymen, but also has some pullets grown by others for him! This gives him maximum flexibility in management.

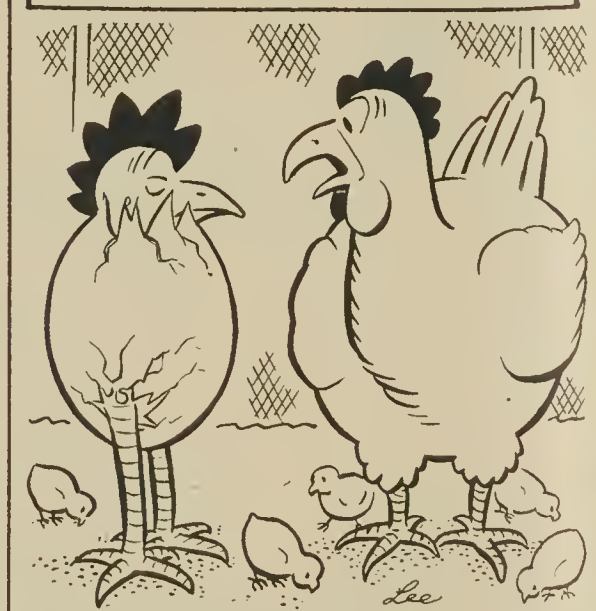
He prefers to buy chicks and then contract with someone to grow them up to 20 weeks for him. Phil specifies the vaccination program and medication; his feed supplier has a fieldman who "rides herd" — or flock — on the pullets as they grow. Phil, like Ralph Ward, wants the Newcastle-bronchitis vaccination by drinking water at 4 days, 4 weeks, and 4 months of age. He also uses Tilan at one day old to cut down CRD, but does not use a coccidiosis vaccine. A coccidiostat, however, is added to feed during the entire growing period — once in cages, of course, it's no longer needed.

Speaking as a pullet grower, pullet purchaser, and egg producer, Phil says: "An investment in something forces a person to do a better job." He predicts egg producers will grow more of their own pullets to insure getting the birds they want, and also to save on replacement cost.

DON'T BUY 'EM OFF THE SHELF

Of all the ways to have problems with started pullets, there seems to be no surer way than to buy them "off the shelf" without any prior arrangement with the grower. Some poultrymen look for bargains this way, hoping to catch someone in a squeeze without a home for pullets ready to lay.

It's a real gamble, though, because the purchaser can't be sure of vaccination, feeding or lighting programs — nor can he expect any adjustment if something goes wrong. There will be gamblers as long as there are humans, but poultrymen might better stick to cards and horses instead of "shelf" pullets.

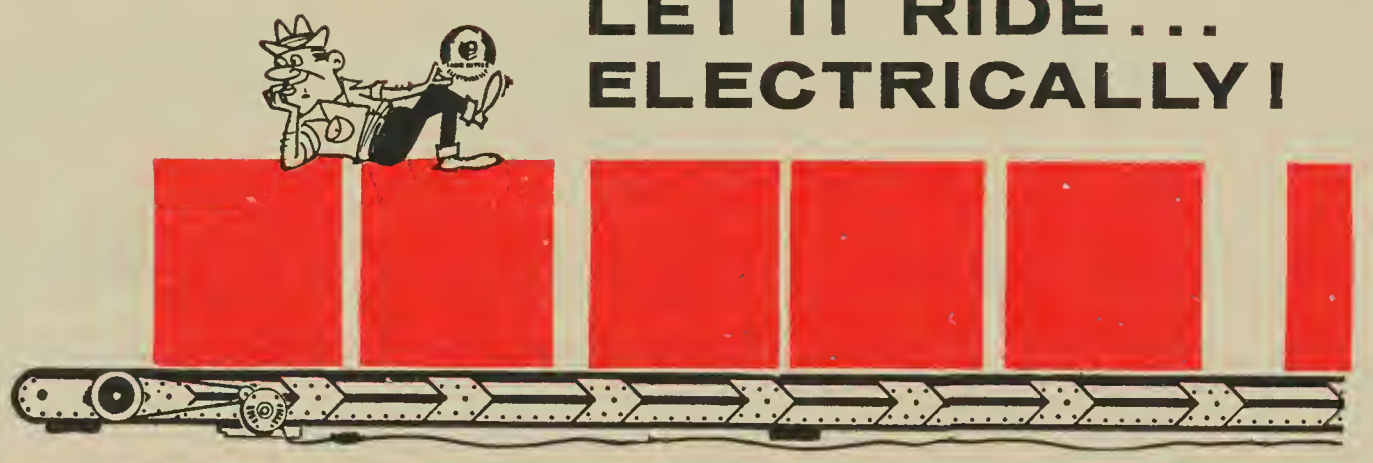


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BLACKBIRD TRAPS

by Amos Kirby
New Jersey Editor

NEW JERSEY's Agricultural College and cooperating agencies have started work on the blackbird problem, one of the most challenging matters facing corn and fruit growers in many parts of the State. Salem County Agricultural Agent Robert Gardner invited me to follow this project, and give American Agriculturist readers my observations.

We visited the blackbird trap on the farm of Frank Powell, a few miles from the city of Salem. This is a wire-enclosed trap, 18 feet wide, 36 feet long, and 6 feet high. It is located close to a marsh along the Delaware River, considered one of the most heavily-traveled airways for blackbirds as they move from the marshes to raid corn fields — and later on the apple orchards farther inland.

The Trap — On the day we visited the Powell farm a number of birds had entered the trap through the turkey wire sections located in the top. At this stage, the trap has proved that it will attract birds. In talking with Eugene McLaughlin, a representative of the Entomology Department at the College, he informed me that this is a test project, and from it they hope to find and perfect ways to bring the blackbird problem down to the point where it can be lived with.

FARM LABOR

New Jersey fruit and vegetable growers are taking a hard and close look at their farm labor problem. There is no serious shortage as of now, but there is cause for concern about 1965. The action of Congress in cutting off the flow of help from Mexico finds California and Southwest growers turning to Puerto Rico for workers.

Unofficially, I have learned that many workers in Puerto Rico will not accept jobs on farms. Already it is becoming difficult to secure the type of workers required in crop harvesting. And checking brings out the fact that there is a definite limit on the city unemployed who will accept work on farms.

Dropouts — Joseph Garofolo, manager of the Glassboro Labor Camp, reports that Commissioner of Labor Raymond Male, Trenton, has agreed to the establishment of a special crew of about 30 school dropouts to be brought to South Jersey for training, and providing jobs for those who are unable to obtain work in nearby large cities — another approach to the two-edged urban unemployment and farm worker shortage.

HERE AND THERE

Windmills — If you happen to see windmills rising in New Jersey this summer, rest assured they aren't being used to pump water. The Jersey Certified Farm Markets, Inc., a group of roadside market operators, are erecting them to call attention to their markets.

The first three windmills are to be erected at the markets of Harry Lentz, Thorofare; Walter Hurff, Hurffville; and Joseph Bataglia, Hammonton; others will be erected as soon as they can be delivered. It appears to be a unique method of identifying these top-quality markets.

Big Issues — Three issues appear on the horizon that call for everyone's consideration:

(1) The proposed assessment of personal property on farms and industry is creating unrest and uncertainty. With the new law scheduled to go into effect August 1, it may be revised, put off to a later date, or taken into the courts.

(2) The County College project is heading for a non-binding referendum in Hunterdon County, and maybe others in the near future. County boards of freeholders are keeping an open mind on the college issue, and may call for voter expression before acting.

(3) Among other issues, New Jersey voters will be asked to vote on two issues involving $90,100,000 for construction of new institutions and educational facilities.

PURELY PERSONAL

Miss Mary Leaming and James Fawcett of the Extension staff have been honored for their many years of service to agriculture. Miss Leaming is one of three persons in the nation to receive the outstanding service citation from the Grand Council of the Epsilon Sigma Phi, national honorary fraternity of the Extension Service. Jim is the first to receive such an honor from Alpha Xi chapter of Epsilon Sigma Phi.

Retired — John W. Carncross, agricultural economist at Rutgers, retired July 1 after 39 years in the field of farm economics. John will be missed, but his work will be the basis of many future studies.



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BUILDS WIND MACHINE

A Chautauqua County farmer — in the heart of the Concord Grape Belt in western New York — has designed and built a wind machine to protect tender grape buds from frost damage. Norman Sackett (at right in picture), Silver Creek, finds his wind machine works well when towed at a slow pace between rows. Pulled by a standard farm tractor, the air is moved by a Jacobs 225 horsepower aircraft engine. It is mounted on a double axle trailer with a rubber tire outrigger; the eight foot variable pitch propeller is about 11 feet off the ground at the center hub.

A temperature increase of about two degrees can be obtained by mixing layers of air, explains Sackett. In this particular area, a two degree increase in temperature is usually all that's needed to prevent severe frost damage. — Robert Dyment.



This 200-cow barn and silos near Smyrna, New York, were under construction when visited. Note steel frame; piers are formed by pouring cement in oil drums.

ROOM FOR 200 COWS

Bill Ianello is teaming up with his brothers Dominic and "Skip" to build a 368' x 50' free-stall barn for 200 cows near Smyrna, New York. There are three silos, each 24' x 60', to hold the corn silage and haylage that will make up the entire roughage ration for milkers. They plan on baling some hay for young cattle, however.

They are using a 10' self-propelled windrower, three self-unloading wagons, two choppers, a blower and five tractors to move roughage into the silos. This year, they are planning on ensiling 180 acres of hay, 40 of oats, and 130 of corn. They figure that all the field work, plus milking the herd in the double-eight herringbone milking parlor can be done by the three brothers and a cousin, Robert Nardi. They don't plan on having any dry animals at the big barn; are planning on having 230 to 240 cows in the entire setup in order to keep the main barn full of milking cows.

The brothers were previously operating three separate herds totaling 130 milkers; the new setup will bring milking and stabling of milkers together in one place. At the time the accompanying picture was taken, the barn and silos were just under construction. However, modern construction methods allowed it to be completed in a hurry.

COMMENT ON WHEAT

WHEN THE wheat-cotton bill was in the Senate, the old-time Republicans who had worked for this legislation in the past, like Milt Young of North Dakota and Carlson of Kansas, stood on the floor shoulder to shoulder with George McGovern and fought for its successful passage. In the House, only Mark Andrews of North Dakota spoke in favor of the bill in the very limited debate — but it was significant that Joseph Martin, long-time and highly respected Republican and Leader of the House, also went and sat on the Democratic side of the aisle and voted with the Democrats in favor of this long-time Republican position.

I think it can be quite easily proven that there has been no significant change in Grange policy for many years. The certificate program on wheat was stated as far back as 1924; this was our proposal in 1932. At that time it was introduced by the Hon. Clifford Hope, long-time Republican leader in agriculture in the House who also worked very diligently for the passage of this legislation both in his personal testimony before the Committee, innumerable letters and telegrams to the Congressmen, and a great many telephone calls trying to influence even his own Kansas delegation.

The Voting

I should also tell you that there were a number of other Republicans who wanted to vote for us who were deterred by the threat from the Congressional Committee that there would be no funds from the Republican Congressional Campaign Committee available for those who voted for this legislation. Even at that, there were some more Republican votes that we could have had if we had needed them. The actual strength of the two sides was not as close as the final vote indicated.

Our position on milk is supported by the National Milk Producers Federation; our position on potatoes is supported by the commodity groups involved. Our position on cotton was vigorously supported by the Cotton Producers Legislative Committee. Our position on feed grains is supported by the Feed Grains Council, The Grain Sorghum Association, and the Corn Producers Association. Of some significance is the fact that the National Cattlemen's Association took no position this year concerning wheat legislation, although they followed the Farm Bureau lead last year.

Middle Road

The simple fact of the matter is that Grange position in the middle of the road presents the only possible and most desirable alternative to the extreme right position of the Farm Bureau and, in many instances, the far left position of the National Farmers Union. The reason for our almost unbelievable influence in the Nation's Capital at the present time is that the Congress has recognized the situation. Repeatedly we have been complimented by both sides when we have presented our testimony on the thoughtful, objective, and factual basis on which we build our testimony, and the constructive and helpful suggestions which we make. I have yet to have an unkind word said to me by a member of a Congressional Committee before which I have testified.

There is a definite campaign underfoot to paint us as a leftish organization in the midst of American agriculture. What in reality has happened that has changed in our American agricultural organization is the dramatic shift of the American Farm Bureau from the associate position with the Farmers Union on the left of the political spectrum to a radical right position since the advent of Allen Kline and Charles Shuman.

When I first started working for the Grange almost a quarter of a century ago, we were accused of being a very obstructionist and conservative organization. The policies which we were talking then are the same policies we are talking now. All of a sudden the Farm Bureau now accuses us of being a leftish organization.

The change, as I have indicated, is not in the position of the Grange, but in the position of the Farm Bureau. The only major shift in Grange policy that I can remember has been in regard to federal aid for education. On basic farm policies, the Grange position, as I have stated in my testimony concerning the Food Commission, is based on the same foundation that it was almost 100 years ago. — Harry L. Graham, Legislative Assistant to the Master, National Grange.

Dates to Remember

August 1 - 1964 Maine State Dairy Show, Windsor Fairgrounds (12 mi. east of Augusta) Maine.

August 1 - Windham Co. Farmers Field Day, Wheeler Farm, Wilmington, Vt.

August 6-7 - New England Green Pastures Forage Forum, Univ. of Conn., Storrs.

August 6-8 - Addison Co. Farm and Home Field Days, UVM Morgan Horse Farm, Weybridge, Vt

August 7 - Holstein Show, Fair Grounds, Flemington, N.J.

August 20-22 - Summer Convention, N.Y. Christmas Tree Growers Assoc., Cornell University, Ithaca, N.Y.

August 10-11 - N.Y.S. Hort. Society Tour, Champlain Valley and Canada.

August 12 - Science at Work Program, Conn. Agr. Exp. Sta., New Haven.

August 12-13 - Farm Equipment and Materials Handling Exhibition, Humphrey Farm, New Hartford, N.Y.

August 14-15 - Lumberjack Roundup, Branbury State Park, Lake Dunmore, Vt.

August 15-16 - Rhode Island Gladiolus Show, Rodman Gymnasium, Univ. of R.I., Kingston.

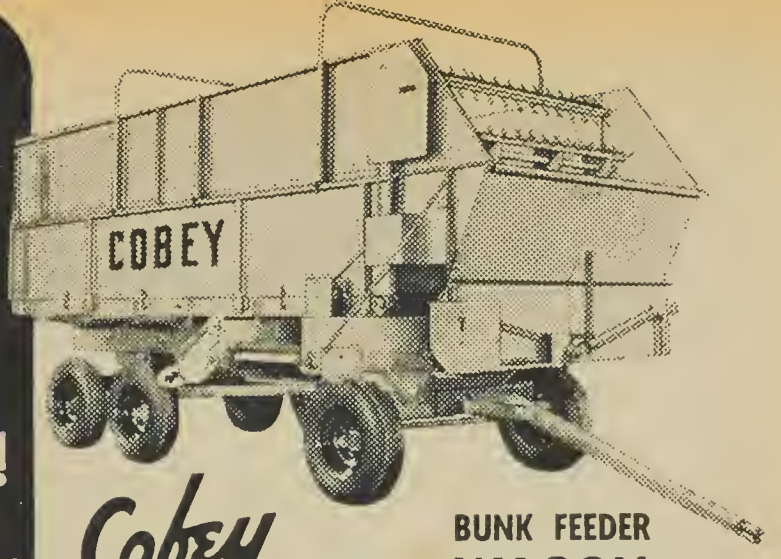
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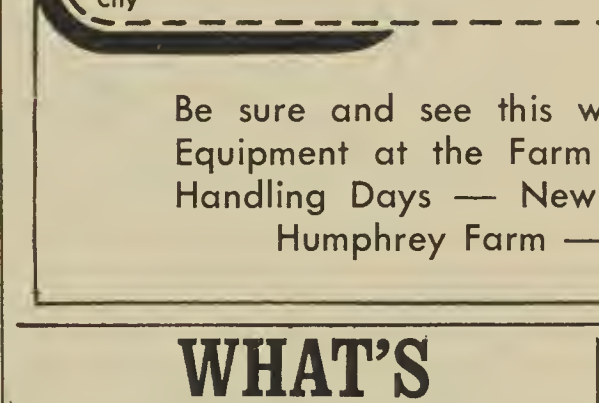
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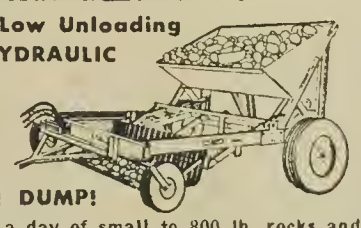
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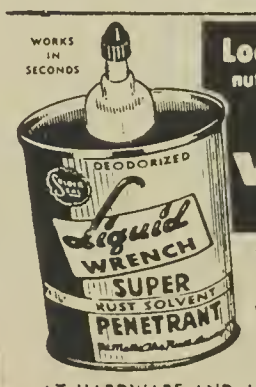
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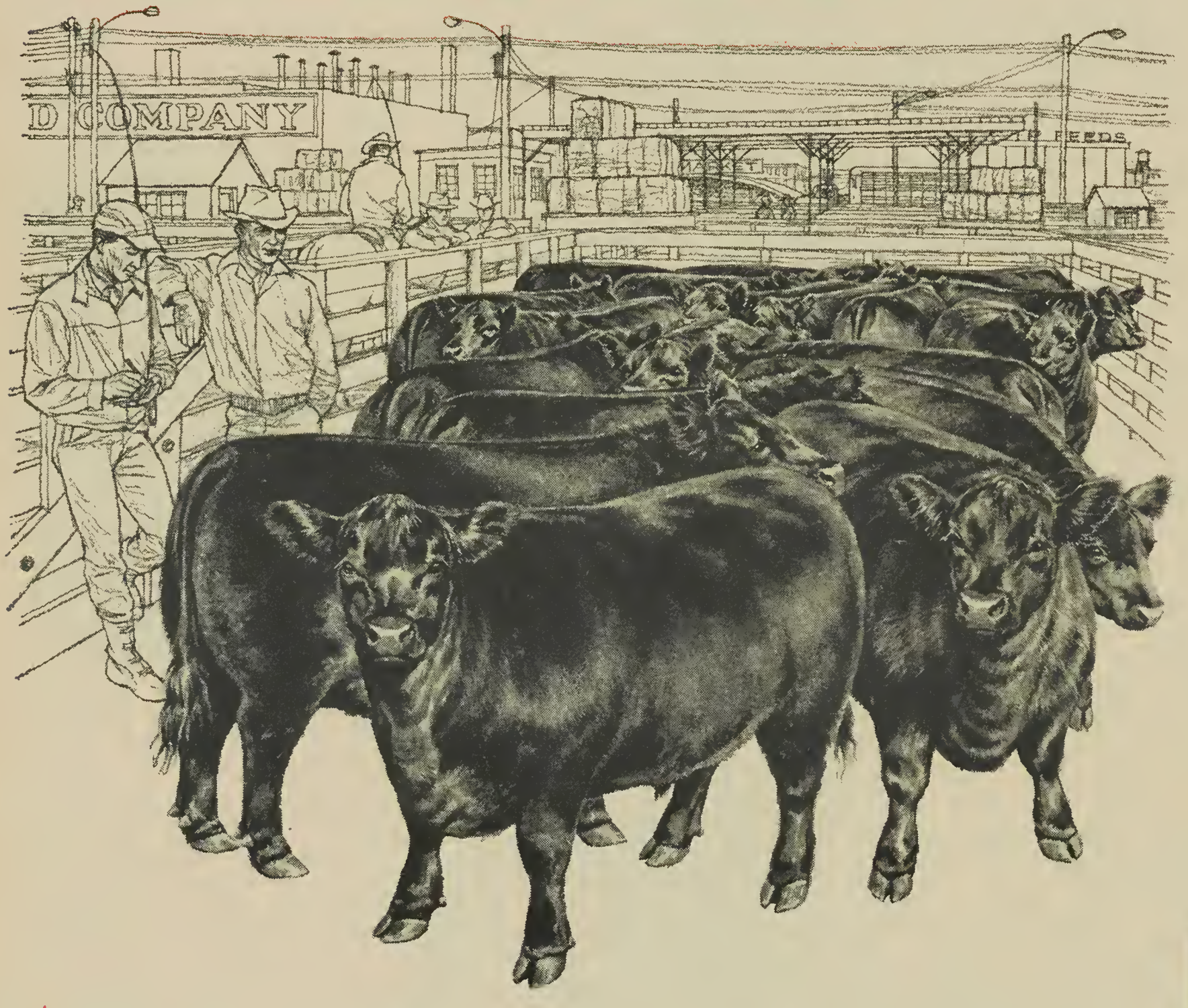
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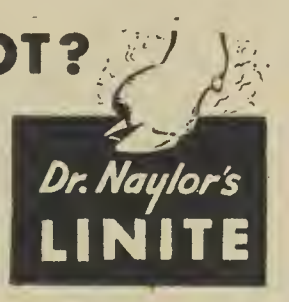
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(Continued on page 24)

Fashions for Happy Fall Days

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4939
10–20

4935
9–17

4545
2–10

9084
6–14

4512. Wrap skirt, double buttons. Printed Pattern in Misses' Sizes 24, 26, 28, 30, 32 inches. Size 28, 2 yards 45-inch fabric. 35 cents.

9220. Neat shirtdress with pleats. Printed Pattern Half Sizes 14-1/2-24-1/2. Size 16-1/2 takes 4-5/8 yards 39-inch fabric. 35 cents.

4512
WAIST
24"–32"

9128
14½–24½

9128. Pretty side-buttoned apron. Printed Pattern Half Sizes 14-1/2-24-1/2. Size 16-1/2 takes 2-1/8 yards 35-inch fabric. 35 cents.

9159. Slim sheath with scalloped collar. Printed Pattern Half Sizes 12-1/2 - 24-1/2. Size 16-1/2 takes 3-3/8 yards 39-inch. 35 cents.

9220
14½–24½

9183
21½"–23"

4557
10–18

9094 10–20

9101
14½–24½

9159
12½–24½

4557. Smart bodice, box-pleated skirt. Printed Pattern in Misses' Sizes 10-18. Size 16 takes 3-7/8 yards 39-inch fabric. 35 cents.

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4696. 3-part outfit. Printed Pattern in Half Sizes 12-1/2 - 22-1/2. Size 16-1/2 suit, 3-5/8 yards 35-inch; blouse 1-1/2 yds. 35 cents.

9094. Shift with drawstring neck. Printed Pattern in Misses' Sizes 10-20. Size 16 takes 3-3/8 yards 39-inch fabric. 35 cents.

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4696
12½–22½



9003
10–20

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FLOWERING SHRUBS

by Nenetzin R. White

In "Garden Talk" for July, I told you about several of my favorite flowering shrubs, and I want to complete the list this month. All of the shrubs described are hardy in the central Northeast and can be grown in conditions that are somewhat less than perfect.

Beauty Bush (Kolkwitzia amabilis) is an excellent choice where a large shrub can be used. Covered in the spring with pink flowers, it attains a six to seven-foot height with an almost equal spread.

Coral Berry is a good choice for steep banks. It should be cut to the ground every two or three years. Growing two to three feet in height, it has delightful sprays of fruit.

Cotoneaster divaricata is a good upright form of this shrub. While the blossoms of all cotoneasters are small, they are like perfect miniature roses and most appealing in small flower arrangements. I frequently use these on my coffee table where everyone is charmed by them.

The spreading and dwarf cotoneasters are just now coming into their own. They are good on some banks and as face plants or ground covers. We grow about ten varieties of this delightful little plant. In common with the upright forms, they have bright red fruit and beautiful small, shiny leaves.

Dogwood. The shrub dogwoods make fine large plantings, and the red stemmed and yellow stemmed ones provide a lot of winter interest, especially when planted in groups.

Firethorn (Pyracantha) can be grown as a shrub, espaliered, or just used as a vine. It has good textured foliage and masses of brilliant berries.

Forsythia. Delightful, new-named varieties of this widely-grown shrub have quite a color range. Lynwood Gold is my favorite with its deep rich color. Another one that we are growing, Karl Sax, has blossoms two to three times the normal size.

Honeysuckle. There are new improved strains of this old-time favorite with deep red flowers and fruit. Clavey's Dwarf is a "honey," and will stand some shade.

Lilacs may sound too common to talk about, but they aren't. The French Hybrids do not have the bad sprouting habits of the older varieties, and they come in 30 or more distinct colors, with double or single blossoms. Persian Lilacs are feathery and graceful.

Potentilla is a smallish shrub and has yellow flowers throughout the summer. Good to plant in front of taller plants and like forsythia, the shades of color cover a wide range.

Smoke Bush is always delightful with its feathery blooms in midsummer, and the new Red Leaf and Royal Purple varieties are even lovelier.

Siberian Pea Tree has bright yellow florets against unusual light green foliage. Becomes a beautiful and graceful large shrub.

Viburnum. Many shapely, versatile shrubs make up this group. Two of the fragrant ones that do well here are Viburnum carlophalum with its pinky-white snowballs and Viburnum carlesi which blossoms a bit later and has rather flat blossom heads with more pink in them. The fragrance is one you will never forget — similar to Arbutus, but spicier.

Viburnum tomentosum has flat heads of blossoms that really surpass a flowering Dogwood in beauty. The shrub branches horizontally and is really a gorgeous plant.

There are many more varieties in this family — tall, medium and dwarf ones, and some that will even stand shade or water. The spring flowers of many are rather inconspicuous because they are yellowish-green, but all have magnificent fall color, and most of them have myriads of colorful fruit.

Use as many of these delightful shrubs as you can in backgrounds and windbreaks, for privacy, as a fence, or as individual specimens. All these plants should be hardy for you, but keep in mind the fact that wet feet can stunt or kill a good plant. In clay soils it's pretty easy to plant in pockets that retain water, so prepare deep beds, using organic matter (such as peat moss) for aeration.

What's Your Hobby?

Horses

My hobby is horses. I collect horse figurines, horse books, and go horseback riding whenever I can. I would like to have a horse of my own and am hoping someday to live where I can have one. — Becky Johnston, R. I. Newburgh, N. Y.

STARS

By Lois O'Connor

I've heard the scientific views on space,
An explanation of the glitter known as stars.
Silly notions! Stars are tail lights on the angels' cars
Drawn up in a celestial parking place.



Send for your new Fall-Winter Pattern Catalog and get ONE PATTERN FREE!

Now, even before Fall begins, choose your first fall pattern FREE from 300 sparkling design ideas in our new Fall-Winter Printed Pattern Catalog! See the newest casuals, school styles, separates, glamor fashions. Of course, all sizes included! Coupon for free pattern in Catalog.

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Find out how quickly this 3-way medicine goes to work. Enjoy a goodnight's sleep and the same happy relief millions have for over 60 years. For convenience, buy the large size. Get Doan's Pills today!



Photo: General Mills

Fruit cobblers are an old-time favorite. Take your choice of a "Down-under" or "Top-side" version, both with a tender biscuit dough made from your own recipe or a packaged biscuit mix.

FROM GARDEN AND ORCHARD

by Alberta D. Shackelton

AUGUST SEEMS to outdo all other months with the many fruits and vegetables available from garden and orchard, and they offer a welcome, tasty variety to summer menus. This year plan to introduce your family to some new dishes, as well as new methods of preparing old favorites. Here are a few suggestions to get you started.

TWO-WAY PEACH COBBLER

For Down-under Cobbler: Combine 3 cups sliced fresh peaches, ¼ to 1/3 cup sugar, and 2 teaspoons cornstarch combined with 2 tablespoons cold water. Place in a 1½-quart baking dish, dot with butter and sprinkle with nutmeg if desired. Place dish in a preheated moderately hot oven (400°) while preparing topping (about 15 minutes).

Combine 1 cup biscuit mix, 2 tablespoons sugar, and stir in about 1/3 cup light cream. Drop by spoonfuls atop hot peach mixture. Bake about 15 minutes or until biscuits are lightly browned and peaches bubbly. Serve warm with milk, whipped cream or whipped dessert topping. Serves 4 to 6.

For Top-side Cobbler: Combine 2 cups biscuit mix, 2 tablespoons sugar, ¼ cup chopped pecans, and ¾ cup light cream. Knead gently 8 or 10 times on a lightly floured board. Pat dough into a well greased 8-inch square pan. Press peach slices (4 to 5 medium peaches) into top of dough in rows. Sprinkle with a mixture of ½ cup sugar, ½ teaspoon cinnamon, and ½ teaspoon nutmeg. Dot with 1 tablespoon butter.

Bake about 30 minutes in a quick moderate oven (375°) or until dough tests done. Serve warm, cut in squares, with whipped ice cream (whip ice cream until smooth but not melted). Serves 6.

Note: For a richer dough, use a little less cream and stir 1 egg into it.

BLACKBERRY PIE

(With Twisted Lattice Crust)

Pastry for 2 crust 9-inch pie
4 cups blackberries
2 tablespoons orange juice
¾ to 1 cup sugar
3 to 4 tablespoons flour
½ teaspoon cinnamon
1½ tablespoons butter

Combine berries, juice, sugar, flour and cinnamon and pour into pastry lined pan; dot with butter. Trim pastry about ¼ inch beyond rim, push up with hand and flute. Roll remaining pastry into a 12-inch circle and cut 10 one-inch strips with a pastry wheel.

Moisten edge of bottom crust with cold water. Lay half the pastry strips across filling, about 1 inch apart, and twisting each strip as you place it on pie. Repeat with remaining strips, twisted and placed across first ones. Cut each end of strips where they meet fluted edge of bottom crust. Bake in a hot oven (425°), 35 to 45 minutes, or until crust is brown and juice bubbles through openings.

SCALLOPED EGGPLANT

1 medium eggplant
1 medium onion, diced
½ green pepper, diced
1 cup celery slices
½ pound fresh mushrooms or 1 medium sized can
1 cup soft bread crumbs
1 egg
¼ to ½ teaspoon salt
2 tablespoons chopped parsley
Buttered crumbs

Pare eggplant and dice. Cook in a little water until tender, about 10 minutes. Saute onion, pepper, celery and mushrooms in a little butter until just lightly browned. Combine with eggplant, soft crumbs, egg, parsley and seasoning. Place in a buttered 1 to 1½-quart casserole and cover with buttered crumbs. Bake in a moderate oven (350°) until heated through and crumbs are brown. Serves 4.

Note: If desired, add 3 medium tomatoes, peeled and diced, before placing mixture in casserole and

(Continued on page 25)

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WANTED—large quantities of high-moisture corn for early Fall delivery. Bel-Air Farms, Millbrook, N.Y.

WANTED — Old books, letters, magazines. Skutel, Box 265, Southport, Conn.

(Continued on page 27)

VISITING with Home Editor Augusta Chapman

It's "Fair Time" all over the Northeast, and during the next few weeks most of us will visit one or more county fairs and perhaps go to The New York State Exposition (Sept. 1-7) at Syracuse or the Eastern States Exposition, New England's counterpart, held Sept. 19-27 at West Springfield, Mass.

Mrs. Ruth H. Enck of Maryland, New York, spent last winter in Florida and described her visit to the Central Florida Fair in a weekly "Family Newsletter," mailed home to her grandchildren. She sent me a copy and said you could read it too.

Leap Year's Day
February 1964

"Highlight of this week was my day at the Central Florida Fair in Orlando. You may think this a queer time to hold an agricultural fair, but it had about everything our northern fairs have in August and September.

"There was much citrus fruit on display, of course, and exhibits by allied industries such as nurseries that provide young trees, etc. You are familiar with the kumquat, which is like a miniature orange. There was one on exhibit marked 'California kumquat,' and beside it a large pumpkin labeled 'Florida kumquat.' By the way, many people have kumquat trees in their yards, covered with the tiny orange fruits, and they are very pretty.

"Next to citrus, I suppose beef is the most important product here. This is the first time I had seen the Santa Gertrudis breed. They are dark red, very large, and long in proportion to width. The Brahmans fascinate me for some reason. There were many of them. Kissimmee cowboys are not as picturesque as those in western movies, but they have a way of turning up their hats on the sides that gives them individuality.

"I even went to see the antique cars. So 1931 cars are antique? —

"One of the things I enjoyed most was Storybook Land. It was quite as attractive to adults as to children. Live animals were used to illustrate nursery rhymes and stories. Pens like big playpens were arranged on each side of the building. In one was Little Boy Blue under the haystack. On his right two nice cows were 'in the corn,' and on his left were the 'sheep in the meadow.' There was a goose with a red topknot, and over in the corner in a box of hay, the big golden egg.

"Peter Rabbit had a house next to a real cabbage patch, and there was a dummy of Mr. MacGregor, grim and forbidding. The Three Little Kittens were hidden by their mother. Red Riding Hood's wolf was not real, but the Three Little Pigs were honest-to-goodness. They had a straw house, a bamboo house, and a house of red-brick siding. But quite oblivious to these fine accommodations, they were rooting around in the straw and dirt like any other little pigs.

"The sweetest thing was Bambi, and I wanted to steal this darling little spotted fawn. He was a masterpiece of nature, done in the most beautiful shadings of golden brown, just impossible to describe. He was nestled deep in a bed of hay, so still and so perfect that I couldn't be sure he was real. I bent down and whispered to him, and he twitched his pretty dark ears without moving a hair on the rest of his body. I could scarcely tear myself away!"

Returning now from our visit to the Central Florida Fair, I want to tell you that the September American Agriculturist will be in the mails a week early this year. You'll have your copy in plenty of time to read all about the interesting exhibits and features planned especially for women visiting the New York State Exposition.

Garden and orchard

(Continued from page 24)

sprinkle grated cheese over buttered crumb topping.

CORN PUDDING

2½ cups fresh cut and scraped corn
2 tablespoons flour
1 tablespoon sugar
1 teaspoon salt
¼ teaspoon pepper
2 eggs, lightly beaten
1½ cups milk
1½ tablespoons melted butter

Prepare corn by cutting off kernels with a sharp knife and scraping cob with back of knife. Combine corn with flour, sugar, salt, pepper and butter. Stir in the eggs blended with the milk and mix thoroughly.

Pour into a 1½-quart well greased, shallow baking dish and set in pan of hot water. Bake in center of moderate oven (350°), 60 to 70 minutes or until a knife inserted near center comes out clean. Serves 6.

NEW PICKLING METHOD

Food specialists of USDA's Agricultural Research Service now recommend "heat processing" of pickles and relishes for better color, texture and flavor. What are their reasons? First, this processing inactivates enzyme action which causes off flavors, poor texture and color. Also, it destroys any yeasts and molds which, even with utmost precaution, may enter jars as products are transferred from kettle.

Correct processing times for pickles and relishes worked out by the researchers are as follows: 5 minutes for sweet gherkins, crosscut pickles slices, tomato and apple chutney, tomato and pear chutney, dilled green beans, pickled peaches, watermelon pickles, piccalilli and pepper onion relish; 15 minutes for brined dill pickles, corn relish, sauerkraut in pint cans, and 20 minutes for fresh packed dill pickles, pickled seckel pears, and sauerkraut in quart jars.

Pickle and Relish Recipes Available

"Favorite Pickle Recipes," American Agriculturist Box 367-P, Ithaca, N. Y. 10 cents.

"Making Pickles and Relishes at Home" (HG-92). Single copies are available free from Office of Information, U. S. Dept. of Agriculture, Washington, D. C. 20250



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You will be proud to own or give to a friend this beautiful book with its nearly 100 pictures, and fascinating stories of country stores, barber and blacksmith shops, the little red schoolhouse, the country church, clothes folks used to wear, and adventures with those first horseless wagons. Here is your chance to reminisce or learn about life that never will be again.

The first printing of JOURNEY TO DAY BEFORE YESTERDAY is sold out; sales on the second printing are mounting. It's fast becoming a best seller.

Send your check or money order for $5.95 to AMERICAN AGRICULTURIST, Book Department, Savings Bank Building, Ithaca, N. Y. and your copy will be mailed postpaid.

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Science Shrinks Piles
New Way Without Surgery
Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

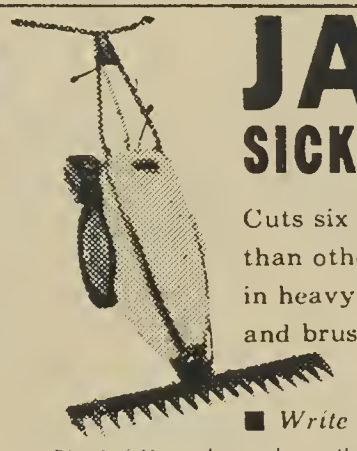
In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

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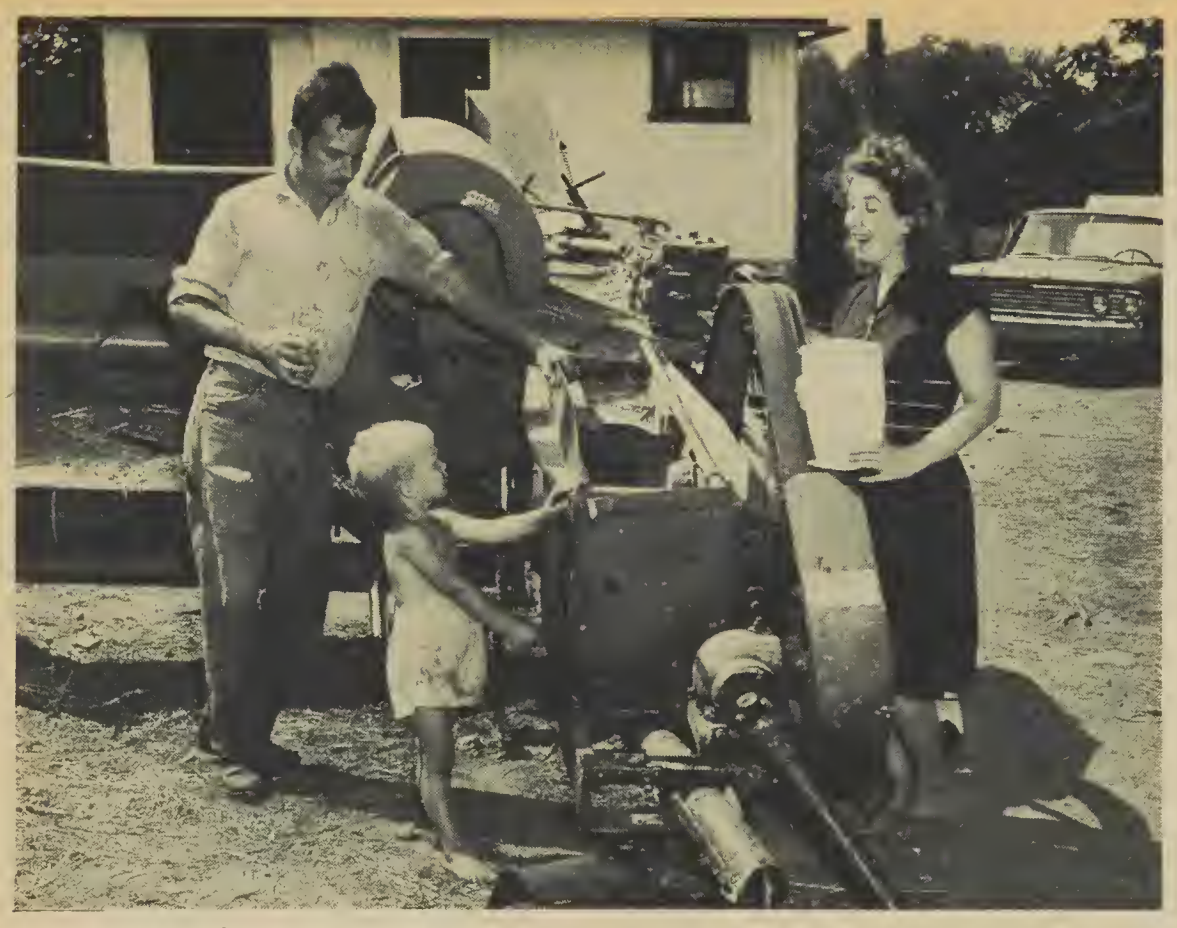
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Raymond and Gerd Aasen share with their son a milk break in the middle of a busy morning in haying.

The Aasen Story

When I get tired and discouraged — and maybe pessimistic about the outlook for farmers — when visiting with them on their farms I always find that they are more optimistic than I am, and I come back with renewed faith in agriculture, and in America itself.

One perfect day near the last of June I had just that kind of a visit. Gordon Conklin, editor of American Agriculturist, and I went down the east side of Cayuga Lake to visit Raymond Aasen and his wife Gerd, young farmers who operate a sizable farm in the beautiful Finger Lakes country. The Aasens are old friends. They formerly lived near our farm at Etna, and during the last year or so that we were there they cut the hay on my place.

Raymond and Mrs. Aasen are Norwegians — and I interrupt myself to say that very often I find that people born in other countries seem to have more appreciation of our liberties and life here in America than do many of us whose ancestors have been here for a long time.

Raymond and Gerd took time out from a busy day to sit and visit with us out on the front lawn. Later, Raymond showed us his barns and crops, and gave us his philosophy of life and living.

Almost All Tillable

The Aasens operate a farm of 200 acres, a very small part of which they rent. Almost all of the land is tillable, and all of it not in grain or corn is growing alfalfa mixed with a little brome grass. They have a herd of 49 milking cows, with a total of about 80 head of livestock. The herd, purebred Holsteins, average an annual production of 13,000 lbs. The milk is pumped directly from the milking machine through pipes and strainer into the big cooling tank, from which it goes to tank trucks.

Raymond raises his own replacements, and is an enthusiastic member of NYABC. He is another example of the opportunity that artificial breeding gives dairymen to have the services of great bulls they could not afford to own themselves.

The Aasens have about 22 acres of wheat, 60 acres of corn (Funk 778 — which has a little longer season but is a heavy producer — and Cornell M3), 18 acres of oats and alfalfa (mostly Narragansett variety). All the crops were right in their glory the last of June, equalling or excelling any I have seen anywhere.

It is easy for them to grow alfalfa both in meadows and pastures, because the farm is on the limestone belt and so it is unnecessary to apply lime.

I asked Raymond about grass silage. He said he had not had good luck with grass put directly into the silo without wilting; he will fill one of two silos with eared corn. With the other silo he is trying something of an experiment; he will fill it with crushed ears only. They will be picked early, with high moisture content. This scheme will avoid the rats and mice problem, and the high nutrient content of the resulting silage will keep down the cost of purchased grain.

Outlook for Agriculture

When we asked Raymond what he thought was the outlook for agriculture, both immediate and long distance, he said that to be successful a farmer had to keep a positive attitude and be reasonably optimistic. He thinks the cost squeeze on markets may get worse instead of better. Therefore, the only way a farmer can continue to survive and make a living is to keep improving his efficiency, as all good farmers have been doing, particularly in the last 25 years, with more and more machinery, automation and science.

Raymond and his wife do almost all of their own labor. They have a little extra help during the summer, but in the winter Raymond does most of the work himself which, of course, would have been completely impossible even a few years ago. He asked me to guess how much capital he has in machinery. I said that the average farmer with that amount of business would have at least $20,000 worth of equipment. He smiled and said he has only about $7,000 or $8,000 invested, and is able to keep secondhand machinery operating pretty well because he does most of the repair work himself.

In addition to the income from the dairy, Raymond sells the wheat from the 22 acres, and last year sold 50 tons of hay.

A Good Place to Live

I am always interested in the kind of life that my farmer friends live, always hoping that they get some fun and recreation in addition to the hard work they do. Mrs. Aasen, who was with us during almost all of our visit, seemed to be just as interested and well-informed about the farm business and public affairs as Raymond. They are remodeling their kitchen, and gradually adding things to improve their home as they can afford them. They have four children, a girl and three boys. Andrew, the eldest, is 9, and soon will be a big help to his father. Last year Mrs. Aasen and the children went back to Norway for a visit with their relatives.

We all agreed most emphatically that a farm like that of the Aasens is just about the best place in the world in which to rear children. The Aasen children are taught to mind, and all have regular jobs to do.

Raymond's philosophy of life is much the same as Gordon's and mine. Our visit developed the fact that both Raymond and Gerd believe in taking time enough for recreation. Raymond takes an active part in community affairs, is an active member of the Grange, the Farm Bureau, and the Dairymen's League.

With some experience in other countries, he stated very proudly that he is glad to be an American citizen and to have the liberties which we Americans enjoy.

The visit with the Aasens was a pleasure which Gordon and I will not soon forget.

TRY IT!

We have a little custom in our family and with our friends that has brought us a lot of happiness, and I am sure it would do the same for you.

Many times on weekends during the spring, summer and fall we put up a simple lunch, drive to one of the dozens of secluded rural spots near Ithaca, and have a picnic lunch. The outdoors gives us ravenous appetites; we take along some folding chairs and small tables, set them under the trees where the view is good, and while we eat we listen to the hum of insects, watch the birds, and try to name the wild flowers and plants. I think we know every back road and rural spot around Ithaca — all the places in which to rest and relax.

The little change helps us to appreciate our home; it looks all the better to us when we get back, and our work seems easier and more interesting, for we are refreshed in mind, body, and spirit.

WATCH YOUR STEP!

The Pennsylvania Medical Society reports that agriculture is the only major industry to show a death increase in the past 20 years. Industry and labor cooperate to cut down accidents, but the farmer has to depend on himself.

Now, we are right in the middle of our biggest farm operations of the year. The harvesting of hay, grain and corn, filling silos, repairing buildings and equipment, and the presence of children on vacation from school, all make a situation fraught with great danger, more so because farming has become so mechanized.

On more and more farms the operation depends on **just one** man — YOU.

It's not a pleasant thought — but a necessary one. Never forget for a second that machinery is dangerous! Tractors should not be driven by children. In short, watch your step or you may be eternally sorry.

EASTMAN'S CHESTNUT

Women claim that they don't have any need for logic in their thinking because they can reach correct conclusions by intuition. Maybe that kind of reasoning is something like that of the characters in the following story:

A lunatic was trying to knock a nail into a wall. But he had the head of the nail against the wood and was hammering the point.

At length he threw down the nail in disgust and said:

"Bah! Idiots! They gave me a nail with the head at the wrong end."

Another inmate of the asylum who had been watching began to laugh:

"It's you that's the idiot," he said, as he jerked his thumb toward the opposite wall. "Nail was made for the other side of the room!"



ED EASTMAN'S PAGE

AA SERVICE BUREAU

HEARING AIDS

"Last fall I purchased a hearing aid from a man who had set up a Hearing Center in a nearby town. I paid cash. He promised to service the aid regularly, but he has never shown up. I found out that he had failed to pay for his local advertising and for his house rent. I hope this man can be stopped from gypping other hard-of-hearing people out of large sums of money."

There seem to be an increasing number of complaints from individuals who have purchased unsatisfactory aids from unauthorized dealers. The purchase of a hearing aid is an important financial investment and should be made with great care. The National Better Business Bureau has prepared the following list of suggestions for those who contemplate purchasing an aid:

"1. Check the nature of the defect or impairment before shopping for a hearing aid. An ear doctor and/or your family physician should determine the nature and extent of the hearing loss or defect. This review will show whether the hearing can be aided by a hearing aid; and if so, the type of hearing aid needed as well as other specifications required.

2. Consider use and function before appearance. Do not be misled by advertising such as "no wires" or "no buttons." It is of importance, first, to decide what the problem is; then, to determine how the hearing aid is to be used and finally, to concern oneself with how it looks.

3. Be sure that the manufacturer is reputable. Hearing aids frequently must be modified after purchase as well as in advance. The company must be prepared to provide continuous service.

4. Be sure that the company has competent authorized representatives. The adjustment, the servicing, the replacement of parts and other accommodations must be done by persons who know the instrument and the problems of hearing.

5. Check the guarantee. Such conditions may cover not only the aid itself, the period of the guarantee and the exemptions from it but also the basis of money-back, if available. The responsibility of the company, its business life, service and dealers must be considered since it is inadvisable to deal with a company which, although reputable, has no local facilities or agencies elsewhere. A person cannot be expected to stay without a hearing aid for long periods of time while it is "in repair" or while it is damaged away from home.

6. Hearing aids and equipment are usually sold through local stores. National companies may not be in a position to discuss or guarantee the facilities and services of any agency, but they are responsible for the authorization and franchise of the dealer. It is therefore advisable to check with a local bureau or other local authority.

Our experience indicates that attention to these points may help substantially in the satisfactory purchase of a proper hearing aid."

We have received an interesting booklet from the American Hearing Society entitled "You and Your Hearing" by Norton Canfield, M.D. If you have a hearing problem, you may want to send 25¢ to Public Affairs Pamphlets, 22 E. 38th St., New York 16, N. Y. for a copy of this booklet.

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CLASSIFIED ADS

(From page 24)

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NEED HELP? We may legally assist you to sponsor excellent Agriculture laborers, including tractor drivers, cattlemen, irrigators, etc. Write for free information stating your requirements to: S. D. Corona (AA) Atty. — 200 Libertad Avenue, 7th Floor, Guadalajara, Jalisco, Mexico.

WOMEN'S INTEREST

BAKE NEW GREASELESS Doughnuts in kitchen. Sell stores. Free recipes. George, 3605 South 15th, Minneapolis 7, Minnesota.

UNBREAKABLE PLASTIC FREEZER CONTAINERS. Square pints, $9.95 per 100; quarts $14.95 per 100; postpaid. Sample pint, 25¢. Oxboro Heath Company, Box 7097N, Minneapolis, Minnesota 55411.

QUILTPATCHES — 200 $1.00. Buttons 800 $1.00. Catalogue, Schaefer, Drummondville, Quebec.

FREE NEEDLECRAFT CATALOG! Embroidery, Knitting, New Ideas! Merribee, Dept. 677, 2727 West 7th Street, Fort Worth, Texas.

12 BIRTHDAY CARDS 50¢; 16 Christmas Cards 50¢. House of Cards, Box 172A, Middletown, Conn.

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WOOL

SEND WOOL TO US for beautiful, warm blankets. Free literature. El Dorado Woolens, Inc., Eldorado, Texas.



Agent Paul Wyak delivers **$4816.42** to Mr. and Mrs. Vernon Gehm at their dairy farm near Lisle, N.Y. Returning home at night the Gehms were forced off the road and smashed head-on by another car.

Mr. Gehm suffered broken cheekbone and jaw, cut face, bruised thigh, injured ankle—his policies paid hospital-medical expenses and weekly income benefits while laid up—total payment was $2091.42.

Mrs. Gehm lost her eye, received cut face, broken nose and ankle—her policies paid hospital-medical expenses and loss of eye benefit—total payment was $2725.00.

She had just recovered from a concussion and back injury caused when a freezer door dropped down on her head and neck. Hospital-medical expenses and weekly income benefits for this accident amounted to **$1470.00.**

THEIR LETTERS OF THANKS

Your local agent has kept in touch with me over the years on different kinds of coverage. I want to say I am most grateful for his insistence over the years and recommending the proper amount of insurance.

Vernon L. Gehm

In four months time I had the misfortune to have two serious accidents. I had North American Accident insurance for many years and hadn't made a claim.

The benefits received are appreciated more than words can express.

We have three sons and four of our hired help that have North American coverage. I recommend that all farm families take out North American insurance and if they have policies, keep them renewed.

Marjorie E. Gehm

OTHER BENEFITS PAID

Charles Clark, Houghton, N.Y.	**$ 515.47**	**Harry Sawyer, Eaton, N.Y.**	**$ 316.90**
Thrown from donkey—back injury		Mower ran over foot—cut & broke toes	
Gordon Summers, Killawog, N.Y.	**615.00**	**Everett Flanders, Jr., St. Johnsville, N.Y.**	**489.64**
Kicked by cow—fractured foot		Thrown from tractor—fractured leg	
Nora Williams, West Valley, N.Y.	**1405.00**	**Louella Begent, Utica, N.Y.**	**882.14**
Slipped and fell—fractured hip		Fell on rug—fractured vertebrae	
Frank Breitenback, Weedsport, N.Y.	**359.14**	**Leslie B. Ashby, Baldwinsville, N.Y.**	**259.85**
Tractor accident—injured back		Fell—broke collar bone, injured chest, elbow	
Harold Hout, Sherman, N.Y.	**500.14**	**Kenneth Lewis, Holcomb, N.Y.**	**1037.75**
Tractor crank hit chest		Kicked by cow—injured knee	
Marshall Seymour, Greene, N.Y.	**399.24**	**Frank Garrison, Middletown, N.Y.**	**1107.86**
Fell from step ladder—injured back		Hit when tire blew up—broke leg, multiple bruises	
Julius M. Lewis, Pine City, N.Y.	**205.70**	**Edith B. Baker, Albion, N.Y.**	**1008.47**
Knocked off tractor by tree—contusion of chest		Auto accident—back injuries	
Clinton R. Nyer, Cuyler, N.Y.	**890.31**	**Milford G. Myhill, Fulton, N.Y.**	**188.90**
Bicycle collided with tractor—broke shoulder		Caught in belt—broke arm, cuts & bruises	
Albert Eppenback, Margaretville, N.Y. ..	**192.84**	**Elmer Cleland, Rensselaer Falls, N.Y.**	**170.00**
Kicked by cow—injured forearm		Attacked by bull—broke leg	
Daryl Miller, Johnstown, N.Y.	**555.70**	**Byron Measha w, Potsdam, N.Y.**	**523.00**
Hit dock while swimming—injured shoulder		Auto accident—broke ribs, clavical, cut & bruises	
Adelaide L. Spiers, Batavia, N.Y.	**363.24**	**Joe Risse, Middleburg, N.Y.**	**1359.31**
Fell stepping down from stool—broke shoulder		Farm truck accident—internal injuries, back, bruises	
Josephine Salamone, Frankfort, N.Y.	**520.00**	**James Wilson, Berkshire, N.Y.**	**754.21**
Hit by car—injured forehead, spine, wrist		Auto accident—injured arm, chest, head	
Gladys Fetterley, Carthage, N.Y.	**422.01**	**Robert Hoffer, Argyle, N.Y.**	**417.43**
Fell down stairs—injured ankle, concussion		Hand caught in baler—injured fingers	
Carl Croniser, Boonville, N.Y.	**971.05**	**Timothy J. Scott, Walworth, N.Y.**	**988.36**
Kicked by cow—fractured leg		Auto accident—fractures & lacerations	
Mary Oulton, Hunt, N.Y.	**235.00**		
Fell—injured arm, shoulder, hip			

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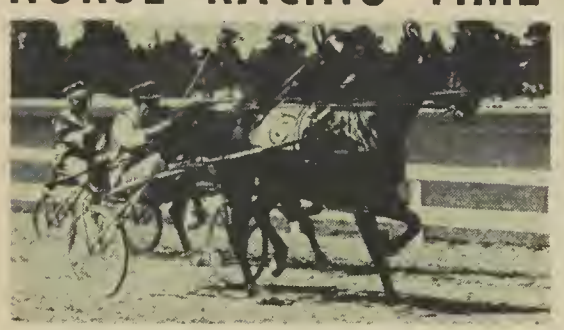
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HORSE RACING TIME



Triumphal return of harness racing: Thursday, September 3. Six races, $12,000 in purses. Quarter horse and Appaloosa horse races Wednesday.

THRILL TIME



Swenson's Thrillcade, with auto and aerial daredevils—free at the Grandstand, day and evening.

NIGHTTIME



All buildings open to 10 p.m. Free family shows in Empire Court and at the Grandstand. *Dazzling Midway Mile* (two complete areas). Square Dance Festival. Food demonstrations (with samples!) Industrial Exposition.

HORSE SHOW TIME



At the Coliseum, opening August 30: the renowned State championship show, second only to Madison Square Garden in the East. (So big it opens two days before the Expo.)

VARIETY TIME



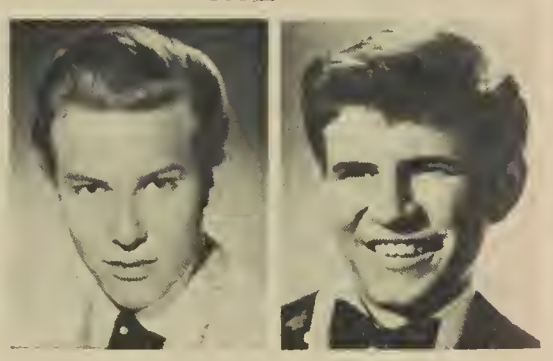
Art Exhibition: 150 paintings, drawings, prints, sculptures. Eastman House Photography '64 Show (next stop: World's Fair). Youth Art Festival. Fashion shows. Home arts and crafts. Antiques. Model home. Creative cooking contest. Auburn Children's Theater. Senior Citizens Center.

STOCK TIME



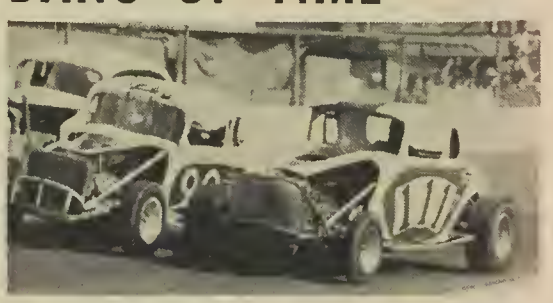
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New York State CHAMPIONSHIP STOCK CAR RACES Labor Day, 1 p.m. Car-smashing Demolition Derby 7:30 p.m. Labor Day.

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only 50¢! In your community—at grocery, drug, and department stores, service stations, banks, utilities, cooperatives, and other organizations.

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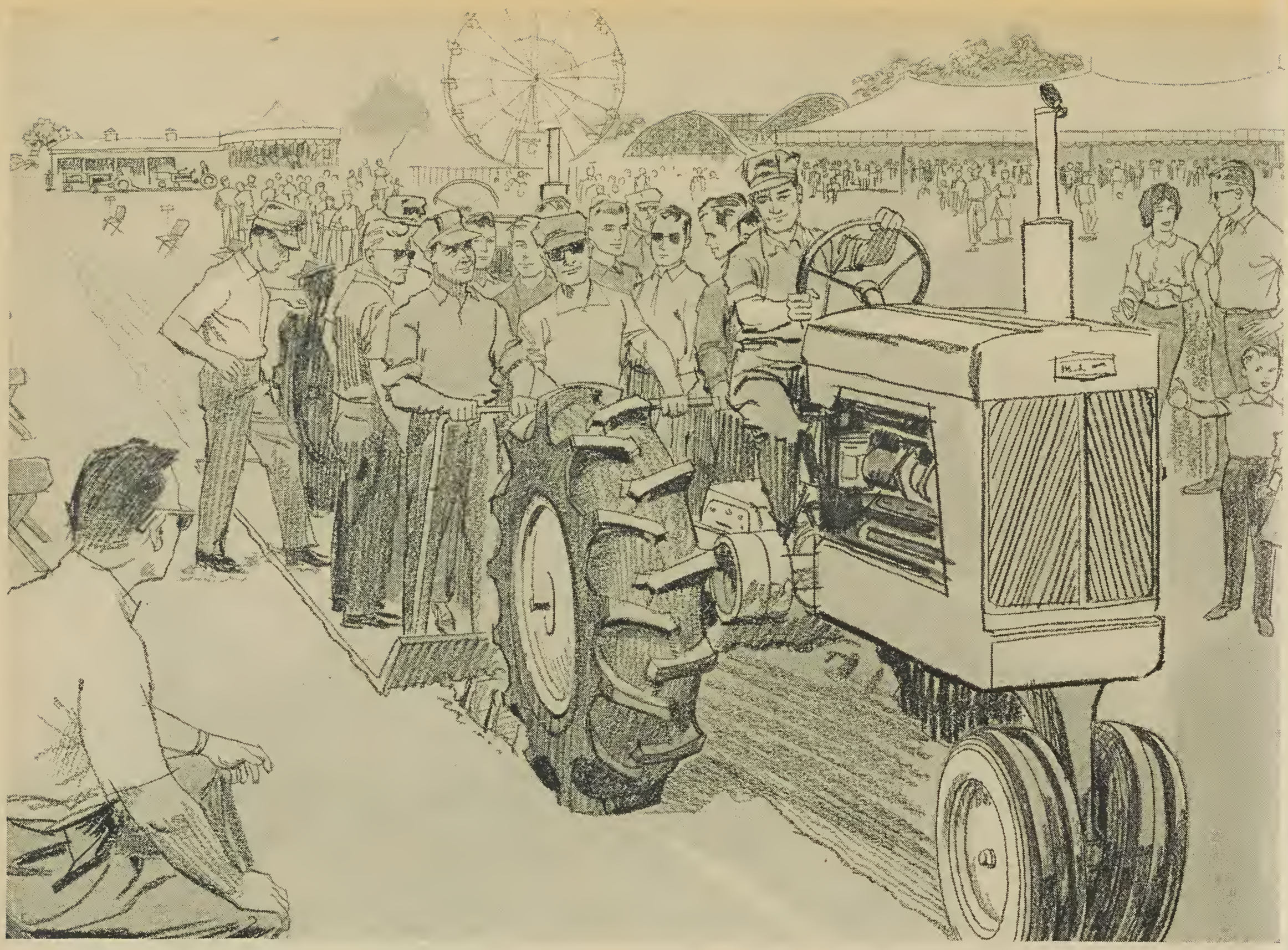
SYRACUSE

Tuesday Sept. 1 thru Labor Day Sept. 7

7 DAYS
7 NIGHTS



SEPTEMBER, 1964



When you see Firestone Field & Road Tires in a pulling contest, watch how they keep on pulling when others stop in their tracks

Firestone Field & Road tractor tires have developed a steady habit of winning pulling contests all over the country. It figures. Their exclusive 23 degree angle traction bars have proved time and again they give unmatched pulling power. Forward *and* back.

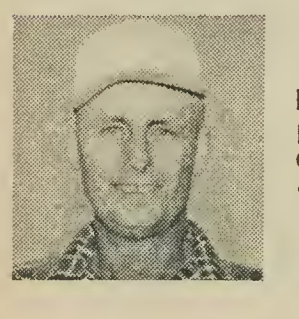
In pulling contests and in fieldwork, Firestone Field & Road tires give you more pull at less cost. They're guaranteed to outpull other replacement rear tractor tires—yet Firestone Field & Road tires cost $20 . . . $50 . . . $70 less per tire. And Sup-R-Tuf, Firestone's new miracle rubber, and Sup-R-Lon, Firestone's extra strength cord, put more road miles and longer field life into every tire.

Talk to your neighbors about the performance they get with Field & Road tires. Then stop in at your nearby Firestone Dealer or Store. Ask about convenient crop and livestock terms.

FIRESTONE FIELD & ROAD GUARANTEE

If, within 60 days of the date of purchase, the new Field & Road tire does not outpull any other replacement rear tractor tire you've ever bought, your Firestone Dealer or Store will (1) refund within 30 days thereafter the amount paid or (2) allow the amount paid in full credit on any other Firestone rear tractor tires. (This traction guarantee does not apply to special-purpose rear tractor tires used in rice and cane farming.) The new Firestone Field & Road Tractor Tire is further guaranteed against defects in workmanship and materials for the life of the original tread. This guarantee provides for replacement of the same size and type of tire prorated on tread bar wear and based on Firestone prices current at time of adjustment.

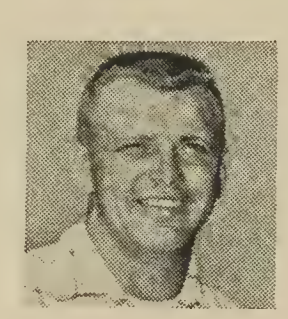
Field & Road, Sup-R-Tuf, Sup-R-Lon—Firestone TM's



L. O. Tilton, Auxvasse, Mo., outpulled all comers in two pulling contests after putting Firestone Field & Road tires on his diesel tractor.



Ray Pittenger, Ashland, Ohio, ended up at 256 feet with 50 men aboard to out-distance competition in a contest at Loudonville, Ohio.



Richard Dahlby, Kensett, Iowa, put 85 feet between his Firestone Field & Road-equipped tractor and the nearest contestant to win at the Worth County Fair.

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American Agriculturist

FOR THE NORTHEAST FARMER

Founded 1842 Volume 161 No. 9

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OUR COVER

What farm boy—or girl—has not dreamed of winning blue ribbons at the fair? Looks as though his cow is dreaming of far-off pastures beside the gurgling brook.



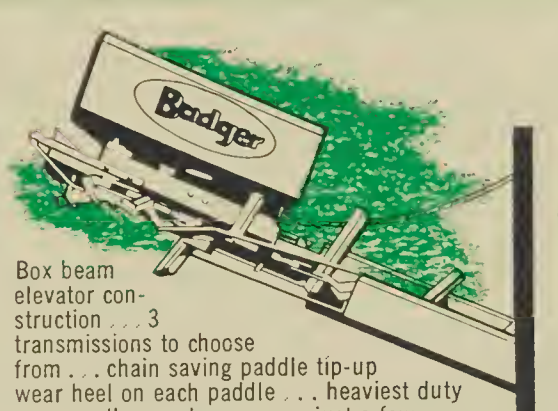
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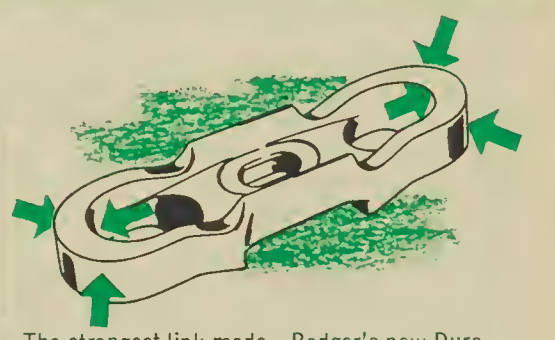
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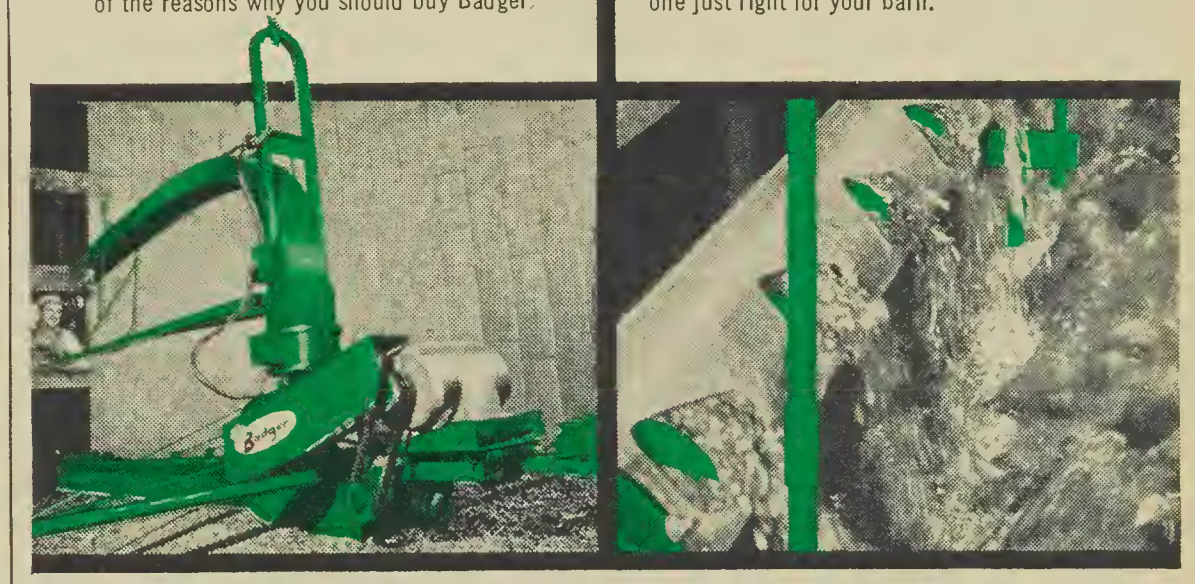
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3

THE NEW ONES!

Simplicity pays off big for you in IH's single-beater spreaders

International Harvester always has made the most efficient spreaders. Now they make the most advanced ones too.

With a single beater whirling 10 massive "bear claws," you get a shredding, tearing action that reduces even frozen material to fine particles.

The same action flings it out in a wide, even blanket, free of clumps. You can top-dress new growth without smothering it.

These IH "bear claws," made of ¼" heat-treated steel, not only are tough and incredibly durable. They also can be replaced individually and with ease.

And forget about apron chain snagging. On IH single beater spreaders, chains run on replaceable wear strips the length of the box—and return within frame channel, out of harm's way.

There are three brand new models—all with PTO—to suit your needs. See them at your IH dealer's. You can own one right now through the easy IH financing plan.

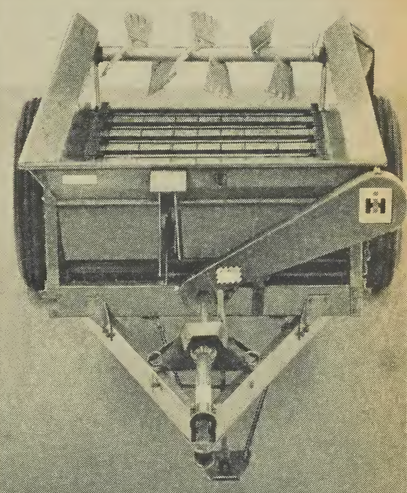
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Double-duty bear claw beater shreds and widespreads at the same time. Extra tough heat-treated claws. Shaft turns on roller bearings mounted outside the box—is shrouded to prevent wrapping.



Apron chains are heavy duty, designed to take constant loading without fatigue. Chains return *inside* frame channel to prevent damage. Boxes are designed wider at rear for easier unloading.



130 and 175 bushel single-beater spreaders also available. In addition, conventional spreaders with paddle or widespreads and flail spreaders, 75 to 160-bushel capacity.



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EDITORIALS

by GORDON CONKLIN



THE UNWANTED

Received a letter recently from the Department of Public Welfare in Chemung County, New York. It reported that in this county there are more children awaiting adoption than there are homes available. These children are under 12 years of age, but none are babies. Infants are easily placed, but older children often become the "unwanted."

Of all the things that can crush the human spirit, there is probably none more devastating than feeling unwanted — the belief that nobody cares. There is no substitute for support and encouragement from someone who is for us as individuals, no matter what we do.

The older children mentioned in the letter are all families of two or three members, all wanting to stay together. Many of them have asked for farm families. If interested, contact the Chemung County Welfare Department, Elmira, New York. I suspect a similar situation may exist in many other counties across the Northeast.

CLASSY CHASSIS

Once upon a time two bulls were visiting in the barnyard — visiting, naturally, about cows.

"You know," said Ferdinand, "I'm lining up a real snazzy number for a date tonight. Heard the boss say she has a type score of 90. Wait till you see her!"

"Go ahead and spend your time with those fancy-looking gals if you want to, but I'm warning you that the boss will lower the boom on some of them — and you, too — when he checks his DHIA records. I'm past the romantic stage where looks are everything; I want to be sure she's going to be useful first and ornamental second."

"Listen, Ferdy, old chum," snorted Wondergene, "you'd better get with it! Haven't you heard the county agent point out that the genetic relationship between high type score and productivity is essentially zero? Beauty is only skin deep, you know, and a dimpled hock doesn't put any milk in the pail.

"Wait a minute," protested Ferd. "Bulls have been interested in looks for thousands of years — how come you're going to desert the bovine species all of a sudden, and go on this practical bit?"

"Because the boss is always pushing that blankety blank pencil of his to figure out milk profits, that's why! He's having a struggle to make ends meet even though the Missus is working away from home full time."

Wondergene felt very noble because he could look at this whole business with complete objectivity, as he believed the boss was doing — performance and not looks was what counted!

"Gene, old boy," Ferdy purred, "just take a gander at yonder convertible coming up the driveway."

Wondergene crowded his neck between the heavy rails and saw a stunning blonde stop her car in the yard and swivel up the walk. She looked even better than the pin-up pictures the boss' son had tacked up on the wall of the barn.

"Type score about 100 plus, wouldn't she," Ferdy mused. "Now observe," he went on sarcastically, "how unemotional and objective the boss is about this dish. He's already fallen off the tractor, and forgotten to close the gate in his hurry to greet her."

Time passed, and finally the convertible and its occupant drove away. Ferdy turned to Wondergene with mockery in his voice:

"So! It took only 15 minutes for her to sell the boss a $500 set of encyclopedia that he needed about as much as a hole in the head. I suppose you noticed that she obviously can't count above a hundred, and would probably faint if any really demanding problem came along. Now go through that routine again about looks being unimportant, will you?"

POOR IDEA

Got to thinking the other day about the problem of unemployed people in Appalachia, where some are third generation "reliefers." As I pondered, the thought also occurred to me that northeastern agriculture has been chronically labor-short for the past 20 years.

Eureka! What better way to solve two problems simultaneously, than to encourage rural people in the "under-privileged areas" to come to rural areas of the Northeast where farm employment is available? Alas! I discovered that this has been tried, with scant success.

As one example, here's what Chuck Fields, executive secretary of the New Jersey Farm Bureau, had to say:

"We have made several attempts over the years to recruit farm labor in the poverty pockets of Appalachia. We have sent men down to that area to recruit unemployed coal miners and others, and have brought them to New Jersey in chartered buses to work on New Jersey farms.

"Unfortunately, the men don't stay longer than a one-day period. They either get homesick for the hills, and return to their normal pocket of poverty, or they head out somewhere else, we know not where.

"To make a long story short, it's a beautiful theory that we should be able to recruit these unemployed, poverty-stricken people to work on farms, but the truth of the matter is that these people will not do the kind of back-breaking, stoop labor in the hot sun that is required on farms."

PRIVILEGE OF PRODUCTIVENESS

Among my acquaintances are a number of people working in the construction industry as members of labor unions, or as supervisors of workmen who are members. Now there are certain rules of the game spelled out very thoroughly in construction union contracts. Clearcut lines are drawn whereby a bulldozer operator is forbidden to drive a truck, an electrician must never touch a pipe wrench, and a carpenter jolly well better not hand a brick to a mason. And if one union steward gets sore, he can stop a whole job by pulling his crew out on strike, even though a half dozen other unions are involved that have no grievance.

Lack of flexibility in getting things done, these folks tell me, can drive a conscientious man nuts. It is one of the great minuses that weighs in the balance with some of the great pluses of unionism.

One of the blessings farmers should count is the opportunity to do their work without consulting a union contract, checking through a stack of government labor regulations, and asking the steward if it is all right to do it this way. A farmer may, and often does, work in a single day as tractor driver, truck driver, plumber, electrician, and carpenter.

There are those who advocate that, in order to attain greater bargaining power at the marketplace and in the legislative halls, farmers should be as rigidly organized as labor unions. Farmers must themselves decide that question — but the decision should be made in full awareness of its likely impact on the unmatched flexibility enjoyed by farmers in getting things done.

TOWARD QUIET JOY

Have you wondered sometimes whether life was really worth living? Has the awesome knowledge come to you that a human being is infinitely small in a universe that is infinitely large?

If your years are such that gray begins to be sprinkled among the other funny colors on your head, you surely have known disillusionment at times with your fellow man. You will have drunk of the bitter cup of disappointment and heartbreak, tasted the wormwood of defeat and boredom. Ahead of us all awaits the grave.

Amidst the troubles of the world, though, I remain optimistic for two reasons — God and man. A sincere search for the spiritual dimensions of life brings a hope renewed day by day — a larger understanding of the meaning and purpose of living, and the inner stamina to meet victoriously the demands of that understanding. As I gaze wonderingly at the starlit sky and muse upon its overwhelming message of endless space, my ear hears a strain of cosmic music that tells me the heartbeat of man is linked to the heartbeat of his God.

When my path crosses that of my fellow man, I cannot help but find inspiration for the day at hand and the days ahead. There is much about the human race — you and me included — that points to the conclusion that the world is going to the dogs. But there is also something else — something that shows in the sweating face of a man working to support his family, in the tenderness of a mother's look at her growing son, and in the bubbling happiness of a little girl with her first doll that is her "very own."

It is my privilege to share in some small measure (by letter and personal contact) the joy and sorrow, the pleasure and pain, the hope and fear, the longing and frustration of many people across the land. As I take my place in the arena of life and ponder its haunting message of the fragility of our days, my ear hears a faint but pervading melody that tells me the heartbeat of man is also linked to the heartbeat of his fellow man.

From such experiences come optimism for the future, whatever it may bring. And with this optimism comes a firm conviction that each of us is justified in believing it is possible for anyone to move day by day toward a greater abundance — toward quiet joy.

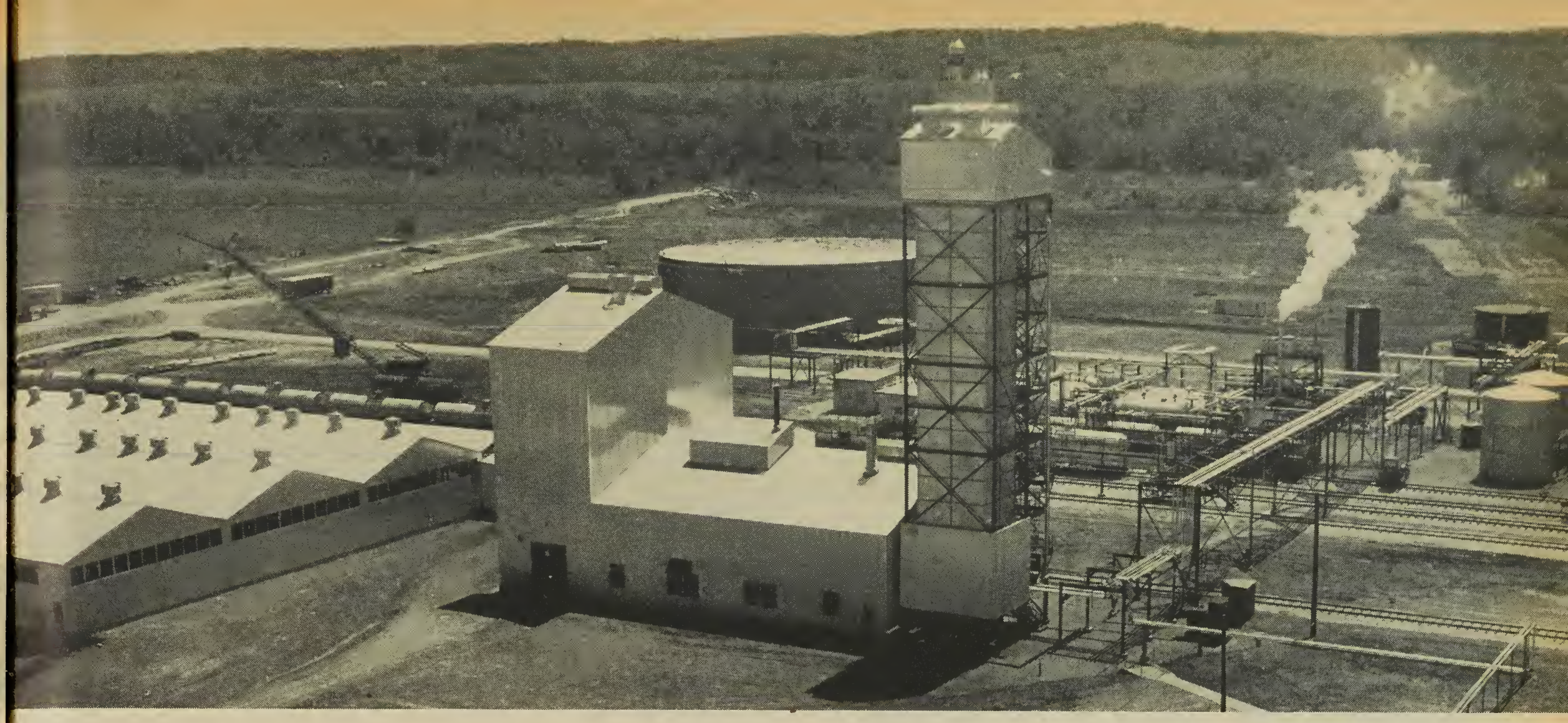
EXTENSION SERVICE

It was in 1914 that the Smith-Lever Act was signed, establishing the Cooperative Extension Service. So, 1964 marks the golden anniversary of the organization.

I remain convinced that the Extension Service has been one of the prime movers in the development of our agricultural abundance, in turn the foundation for our nation's industrial abundance. And, perhaps even more important, it has done much to help rural people develop the abilities to meet problems in a constructive way.

Much argument is now going on concerning the future work of the Extension Service in our Northeast, where the urban population is growing so rapidly. It is my belief that the organization continues to have an important role in "helping people to help themselves."

May its next 50 years be as fruitful as the preceding ones!



Who put Royster in the Nitrogen business?

YOU DID!

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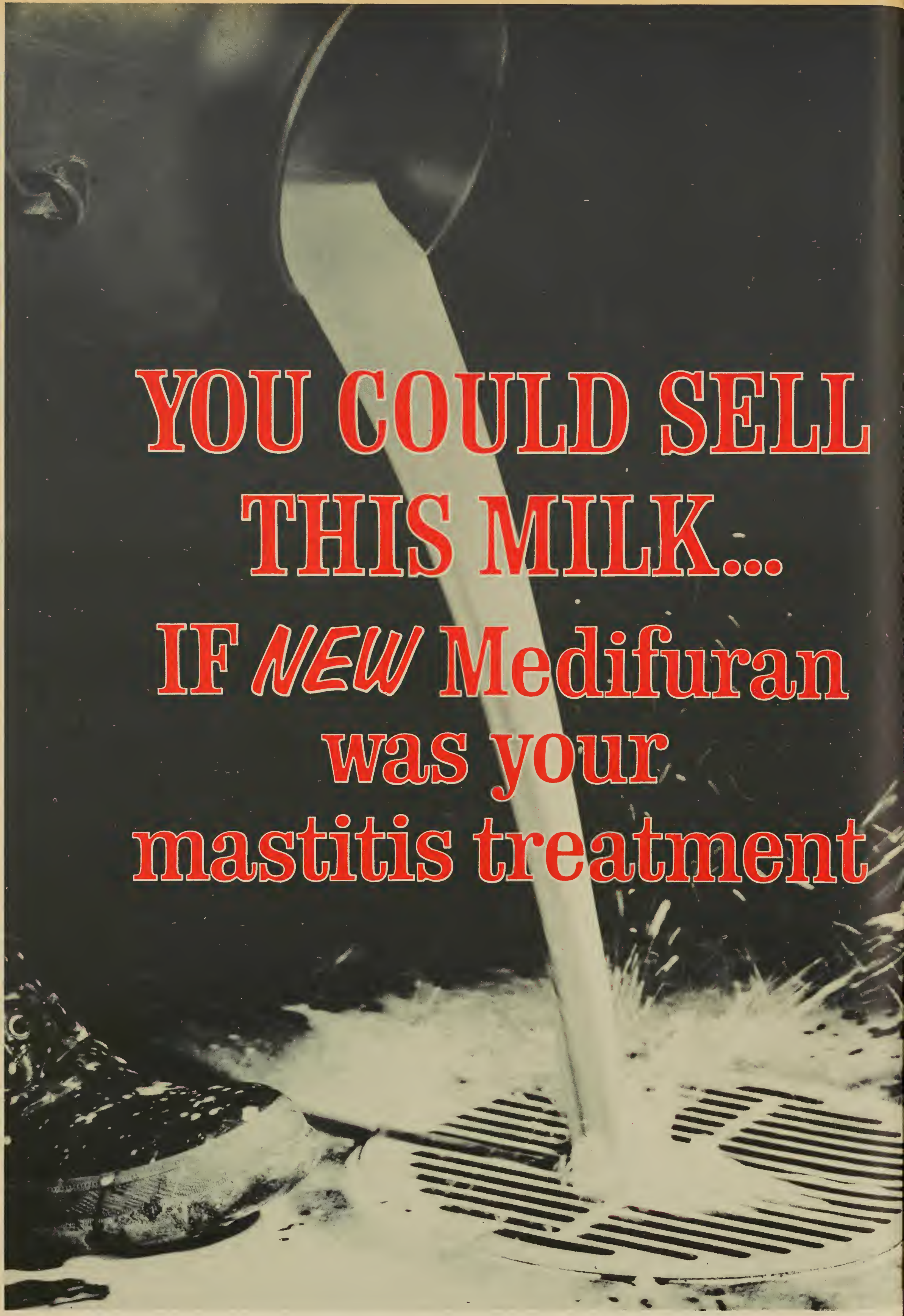
These new Royster Nitrogen products, available at your local Royster dealer, are another down-to-earth, profit-making service for you . . . from the company that has been helping farmers make bigger profits for nearly 80 years.

Give your Royster dealer a call . . . and he'll do the complete job. All *you* do . . . is reap the higher profits that Royster Nitrogens bring. Your Royster dealer will deliver, side-dress, top-dress or broadcast for plow-down . . . with quality Royster Nitrogens, solids or liquids.

Get the job done now, by the man who does the job best . . . your Royster dealer. Call him and talk it over.

F. S. Royster Guano Company, Norfolk, Va.




YOU COULD SELL
THIS MILK...
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was your
mastitis treatment

from the
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Now you can use a mastitis treatment that lets you sell milk 24 to 48 hours sooner. Discard milk for only 48 hours after treatment. It's new Medifuran: The first new mastitis drug on the shelf in six years!

New Medifuran already has proved its effectiveness in research tests and on dairy farms like your own.

Medifuran is based on a new nitrofuran, furaltadone. It will not promote the build-up of drug-resistant bacteria and is effective against the major types of bacteria that cause most mastitis, including staph organisms.

You can use new Medifuran time after time, cow after cow, and continue to get good results.

Important: New Medifuran lets you start selling milk one to two days sooner. You only discard milk for 48 hours (4 milkings) after treatment. So the extra milk you sell more than pays for the slight extra cost of Medifuran . . . in fact, usually pays for the entire treatment!

Try new Medifuran. It probably comes closest to being the mastitis treatment you've always wanted.

M-5-I

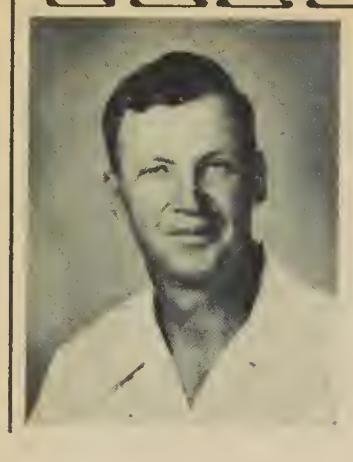


Medifuran FOR MASTITIS

*Contains Valsyn, brand of Furaltadone of the Norwich Pharmacal Co.

Milk from cows treated with Medifuran for mastitis should not be used for food during treatment and for at least 48 hours (4 milkings) after the last treatment.

HESS & CLARK
ASHLAND, OHIO



Gayway Farm Notes

by HAROLD HAWLEY

A CHOICE

The private enterprise competitive system is, of course, a free choice system. Under it our resources have been available to the highest bidder. Our talents have been directed to their highest use and we have developed into a mighty nation. This ability to choose — our life work, our place of residence, goods to meet our every need — is a precious characteristic of this country.

Part of this choosing has always involved our right to belong and work in the political party of our choice. This, again, is a priceless privilege. In the Presidential election of 1960 it seemed we were about to lose the right to make a real choice. In their zeal to woo and win everybody each party and candidate promised everything — and the same things to about the same absurd degree.

Comes 1964 and at least the possibility of a choice. This is as it should be: a couple more non-choices like 1960 and the public will ho-hum away from the polls in great numbers!

Possibly the most disconcerting thing about this whole process of electing a president is involved in the selection of a candidate. Some will say these state primaries are unimportant, but perhaps they wouldn't be too happy with a system such as we have in New York State either. It bothers me that the rank and file neither choose their delegate nor have a voice in determining who they shall support. It's less than reassuring to read that the Governor can control these delegates. Government of the people, by the people, and for the people got sidetracked here somewhere.

When election time rolls around in November it will be important for us to choose — and to vote! But it would be satisfying to at least feel that we have a voice in picking the candidate of the party of our choice.

GROWTH

All of us get a thrill from watching growing things even if we don't understand what we see. If we could only remember how plants grow by stages perhaps we could understand animal and human growth better. It's so disconcerting and amusing to see how much feet and legs colts and pups and boys have at certain stages of their development.

I've always fretted about posture. So many kids seem bent on being stooped. Just about the time parents are ready to despair, bingo! the growth mechanism proceeds to a new stage. and Junior "shapes up" a lot better than anyone ever thought he would.

Seems as though this business of good posture is one we might mention in school as well as at home, and particularly in gym. In my book a gal looks about 100% better if she stands and sits straight. This is the easiest and cheapest shortcut to "beauty and charm" available to anyone.

BIRDS

No, this is not going to be about the birds and the bees — just the birds or lack of them. We have been so puzzled at the lack of them in the fruit this year. Other years, before the cherries would be ready to pick the birds would take over; between the worms and the birds there would be little left for us. This year we had more cherries (on our one tree!) than we've ever seen, and almost no worms even on our unsprayed fruit. The birds just never did bother us.

Those big dark sweet cherries ripened right at the end of strawberry season. If there is anything better than fresh strawberries, it has to be fresh cherries. Or would you say fresh raspberries? What a wonderful thing that their ripening is staggered so one can eat his favorite fruit most all summer. By the time these delicacies are gone, tomatoes and sweet corn are upon us. God is indeed good to we mortals — especially those fortunate enough to have access to these bounties "fresh off the vine."

WINTER ? WHEAT

Last fall was terribly dry in our area. We took off silo corn, plowed, fitted, and planted in a cloud of dust. The wheat never came up in many places, and in others had almost no start before winter set in. This spring it still looked pretty thin and poor. We had it nitrated, and the rains we got early brought it along to make a good crop. Of course, it was a little later ripening than the wheat we planted earlier.

The interesting part of the whole affair was the wheat that didn't germinate until late this spring. It came along, filled up the bare knolls, stooled out real thick, and made about as much grain as the rest of the field. Of course, it was much later ripening. The question is — what would happen if winter wheat seed was sown in early spring? I'm not suggesting it would be a big crop, but it might be as good a bet as planting late in a dry fall as we did a year ago. Anybody ever try this?

REVOLUTION

At long last, much later than it should be, there is about to be a dramatic revolution in farm structures. How do I know? Because farmers have become labor conscious, and because many industries have interested themselves in the potentially-huge market for their products as farm structures. This goes for the steel companies in particular, but also people making outdoor plywood, tip-up concrete, feeding setups, feeding machinery, etc., etc. As a result of their interest a lot of really good basic research is being done on the best and most efficient designs and materials for farm structures as well as the best arrangement and use of equipment, and of the cows themselves.

All of us stand to gain immensely from this research. The great efficiencies in handling field operations may well be equalled in our improved efficiencies in caring for livestock. To date, the labor requirements to produce 100 pounds of milk haven't been reduced very spectacularly — nothing like the reduction in labor to produce 100 pounds of corn. This may well change at a dizzy rate as new materials, new systems, and new ideas are brought into the picture.

Easier Ways

Frequently in recent years we have expressed the view that there just had to be an easier way to care for cows. In dozens of ways this is already being done. For example, many farmers are feeding automatically, housing in loose or free stall arrangements, washing their milking equipment automatically, etc. However, we are just starting down the most exciting road. A look ahead suggests lower building costs per cow by a reduction of floor space per cow, just as our friends with poultry have been doing right along.

A switch in the kind of feed fed to the cows will make possible a big reduction in labor to feed them. I refer, of course, to the switch toward more silage — both corn and haylage, the now common Corn Belt practice of storing wet corn in a silo and augering this right into the feed bunks along with the roughage. Just wait till this becomes a common practice for dairymen here in the great Northeast! I think it won't be very long, either.

We have already seen big labor-saving as manure began to be handled mechanically. We hear much talk of scraping floors in free stall barns in much less time than a barn cleaner takes. Then, too, apparently liquid manure-handling is a step forward. Where we go from here is anybody's guess. It is clear enough that whatever changes are made will be designed to reduce labor, and between the ingenuity of farmers themselves and the many other groups interested in progress in this area it is best to expect the best. It will cost money but it may well be the change that will enable dairymen to stay in business in this highly competitive field.



POULTRY REMODELING

Rexford Davies of Burlington Flats, New York, decided recently to convert one of his poultry buildings into a completely automated setup. It's a single story house 40' x 100', originally built for raising broilers or starting pullets.

At one time, a laying flock of 1,250 birds were in this house, but Rex always had a problem with damp litter. He tried most everything over the years for ventilation, but it never did work quite right.

With the present setup, though, he has no moisture problems because there is a group of three 36" fans at one end of the house, each with its own thermostat. Except for extremely cold weather, one of these fans runs continuously, and the other two cut in when temperature rises.

Rex and son-in-law Hubert Benjamin decided to insulate the building with 2" insulation board made of polystyrene. The 15 windows were blocked with plywood on the outside and the insulation board behind that. This insulation board was also applied to the ceiling.

Feeding is completely automatic — time clocks control the distribution of pelleted feed along the feeding troughs. The storage bins on the feeders are also wired so that when they're nearly empty more pellets automatically are sent over from the main feed storage.

Eggs are gathered by belt, usually about three times a day. Manure is handled with pit scrapers that take it to a cross conveyor discharging into a manure spreader.

The new setup provides room for 2,576 birds — 8 in each 18 x 24" cage. Eggs are sold mostly to stores in the Utica area and in local communities.



Most advanced 5-plow tractor, the Ford 6000 speeds your work with power shift, power brakes, power steering, and Powr-Stor hydraulics.

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FULL-RANGE POWER SHIFTING

Full-range power shifting can save your time, effort, and fuel on almost any tractor job. And for PTO work, there is nothing like it. Just shift on-the-go to meet changing crop and field conditions.

Ford Select-O-Speed is the only full-range power shift transmission available for a 2-3 plow or a 3-4 plow tractor. It's standard equipment on the Ford 6000. And remember, Select-O-Speed's efficiency and durability have been proved by over 60,000,000 owner hours in the field.

PRODUCTS OF Ford MOTOR COMPANY

It's New

Polyolefin Baler Twine — Baler twine from a man-made fiber will soon be available to farmers. The result of a new method of producing artificial fibrous twine, it is made from a petroleum product available in the gas and oil fields of Texas. Light in weight, with a 125-pound tensile strength, the Polyolefin twine can be used in ordinary balers without special attachments. It will be produced in balls the same as conventional sisal twine by a subsidiary of the Eastman-Kodak Company.

Chemical Thinner — Research with Sevin as an apple chemical thinner in the State of Washington by USDA researchers has produced some interesting information. Using radioactive Sevin by tagging, it was found to be present largely in the vascular system; none was evident in the seed.

When applied to leaves only, fruit only, and leaves and fruit, thinning was produced in all cases. However, greater thinning was produced when Sevin had been applied to the apples rather than only to the leaves. Thus, the spray must hit and wet the fruit for greatest fruit removal. Dropping of apples has occurred over a 14 day period following application.

Sound Control — Robert Kirkpatrick, a scientist with the Agricultural Marketing Service of the USDA, had noticed that amplified sound waves kept flies and mosquitoes away from his backyard patio. This gave him the idea that something of the same might have an effect on insects that attack stored grain and other foods.

In exploring his theory, Mr. Kirkpatrick released Indian meal moths (a common pest of stored foods) into a small chamber in which two radio loudspeakers faced each other. The speakers provided a continuous low hum barely audible to humans. The moths were exposed to the sound waves for four days while they were laying eggs, and the results were most interesting.

Only about one-fourth as many moths developed from these eggs, and among those hatched, nearly half died the first day. In four experiments the same pattern persisted, and the scientists are going ahead with further tests to find out if control can really be achieved and what sounds work best.

Hybrid Kraut Cabbage — Drs. John Atkin and John Natti, of the New York State Agricultural Experiment Station at Geneva, are developing hybrid kraut cabbage varieties that will be more uniform in size and shape, and allow for increased yield of marketable cabbage. It will probably be 1965 or 1966 before seed will be commercially available.

Grub Control — Research continues on the control of cattle grubs and other parasites through the use of systemic drugs. These drugs can be sprayed or poured on the animal, are absorbed by the body, and then carried throughout the system by the bloodstream.

At Cornell University no beef cattle under three or four years of age are treated, and animals older than two years are not treated because they have very few grubs. The compounds are used on heifers and young steers. Professor John G. Matthysse warns that the drugs should never be used on mature dairy cattle, because of residues in the milk.

The scientists hope to find a way to use systemic drugs to kill all cattle pests with one treatment. So far there are several being used in the experiments.

Thieving Giant — Delaware farmers are concerned about the encroachment of giant foxtail into their fields.

An immigrant from the Midwest, giant foxtail takes over easily if unchecked. A single plant may produce more than 20,000 seeds per year — and they remain in the soil for years.

Control should start in the first few weeks after planting. The use of pre-emergence herbicides, early rotary hoeing, and good row cultivation all help. For treatment on corn, Atrazine is suggested; for soybeans Amiben or Lorox; for fencerows, roadsides, ditch banks and other non-crop areas, dalapon, following label directions meticulously.

It is estimated that this weed could cost farmers thousands of dollars in a crop year if it really gets rolling in the Northeast.

WASHINGTON, D.C.

How Eastern represents today's dairy farmer



Secretary Orville Freeman examines "drought" map prepared by Eastern officials.*

IN AN EFFORT TO PRESERVE the family-size dairy farm unit—"the very backbone of our industry"—the directors of Eastern Milk Producers recently adopted the following four-point program of action:

1. Request the Secretary of Agriculture to suspend seasonal factors in pricing fluid milk until November because of widespread drought conditions.

2. Urge favorable response by the Secretary to previous petitions for hearings on fluid milk and manufactured milk pricing.

3. Develop machinery to negotiate premiums among handlers wherever competitive situations warrant.

4. Set up a "clearinghouse" for buyers and sellers of hay to expedite the flow of hay from areas of plenty to those hard hit by drought.

Suiting action to the word, Eastern's directors carried this program directly to Washington *(above)* where the first two points were discussed in depth with Secretary Freeman. He was shown a map of the milkshed's drought-stricken areas and heard first-person reports from Eastern's directors on conditions in their areas. The Secretary was also asked to reconsider petitions for hearings on Class I and Class III pricing.

Here is dramatic proof of concerted action and strong representation by Eastern, the producer bargaining cooperative with an unequalled record of action and accomplishment in behalf of the dairy farmer. Little wonder that some 9,000 dairy farmers look to Eastern for *active leadership* . . . from individual farm problems to representation at every level of government. For membership information, call your nearest Eastern representative or write to Executive Secretary John C. York at Eastern headquarters.

**Seated, left to right: Eastern's Economist Robert H. Pelley, Executive Secretary John C. York and President Howard Merrill; Agriculture Secretary Orville Freeman; Ass't Secty. George Mehren; Deputy Administrator Clarence Girard; Eastern's Vice President Paul Walizer and Treasurer Myron Hawkins. Standing: Directors Irvin Schell and John Phillips and Secretary Floyd Kwiatkowski; Director Roland Osborne; Attorney Daniel C. Williams; Directors Earl Doner, Max Lonstein, Stanley James, Freeburn Love, Thomas Twomey and Donald Jones.*

Eastern

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Feed: Agway Super Test

H. Saxton, Saxojac Farm, Locke, N.Y.
44RH **19,296M** **713F**
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Feed: Agway Special Mix with Mixer Krums

Gerald Stoeckel, Bloomville, N.Y.
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Feed: Agway Special Mix with #1600-16

(All DHIA records are 2X-305D)

Without exception these outstanding dairymen used Agway farm-fitted feeds to help them produce more milk and higher profits.

As you might expect, each of them followed a different feeding program in breaking above the 700 lbs. fat level. One herd consumed up to 75 lbs. of corn and grass silage daily. Others went heavy on hay. Grain feeding highs ranged from 25 to 45 lbs. per day.

But all of these record-breakers had one thing in common: Agway farm-fitted feeds, each formulated to stimulate high production under a given set of farm circumstances.

Feeding a herd for top production is an art. Your production ration must fit the way you manage your farm—herd size, roughage program, milking, feeding and field work schedules, how much automation you have. That's why Agway offers such a wide variety of rations...

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DAIRY FEEDS & SERVICES

Grandmas Pay the Bills

by Allen Crissey*

THE WORD "LONGEVITY," I have observed, implies different meanings to different dairymen. Too many think of it as a purely inherited characteristic. Perhaps this is natural because we all know human families, friends or relatives, who seem to possess a certain stamina or mysterious ability to live to a ripe old age, while the members of other families die relatively young. Consequently, there is a natural inclination to ascribe the difference to inheritance.

In recent years, however, an increasing number of scientists studying our bovine friends inform us otherwise. They say, in effect, "There is no gene for longevity."

Nevertheless, while longevity may technically not be a heritable characteristic, still from a practical point of view many of the characteristics that keep a cow in the herd over a long period are heritable. Persistent high level milk production, acceptable butterfat test, useful type characteristics such as good legs and feet — all are examples.

Looking at it another way, we have all observed occasional instances of bulls that sire unusually early-maturing daughters. As two-year-olds these daughters have udders the size of five-year-olds; their entire bodies give the impression of being advanced beyond their years. Such animals, as the result of certain characteristics which they have inherited, do not as a rule remain with us very long.

Referring again to humans, is it not possible that inherited tendencies toward such things as obeseness, nervousness, and hypertension have more to do with shortening one's life than a fancied "short-life gene" in one's inheritance?

Management Factor

Forgetting inheritance altogether, let's consider management as a factor in long cow life. Here one more analogy between humans and cows is in order, because the more one studies cows the more he realizes how almost human they are. They respond wonderfully to friendship and kindness, just as people do.

Most certainly the manner in which we humans manage our lives and our health, for good or otherwise, has a powerful bearing upon our length of life. Have you not seen individuals who are prone to accidents simply because they do not train themselves to be careful?

A herd of cows is under the constant control of the dairyman. Cows are creatures of habit just as humans are; a herd reflects the personality of its owner. A herd is composed or indecisive, friendly or unfriendly, content or nervous — depending upon the nature of its owner.

That's why the animals in some herds are tame, in others wild and ornery. It all depends upon management, and has an influence upon production, accidents, mastitis and longevity.

Quiet Herd

A herd (some individual animals excepted) will become very submissive and can be trained to conduct itself just as quietly and carefully as you want it to. It will become extremely regular in its daily routine — so much so, in fact, that it becomes virtually a herd of coordinated machines.

I can hear some readers saying that with today's large herds and sometimes irresponsible help, you can't do these things with cows. There are always those who say, "You can't do that." I don't accept that excuse.

I say you can do it and it pays to do it, and it is being done on hundreds of dairy farms that I have visited. In fact, almost invariably when you find a really high-producing herd of any breed or number you find kind care of the cows; these dairymen love their animals.

An Experience

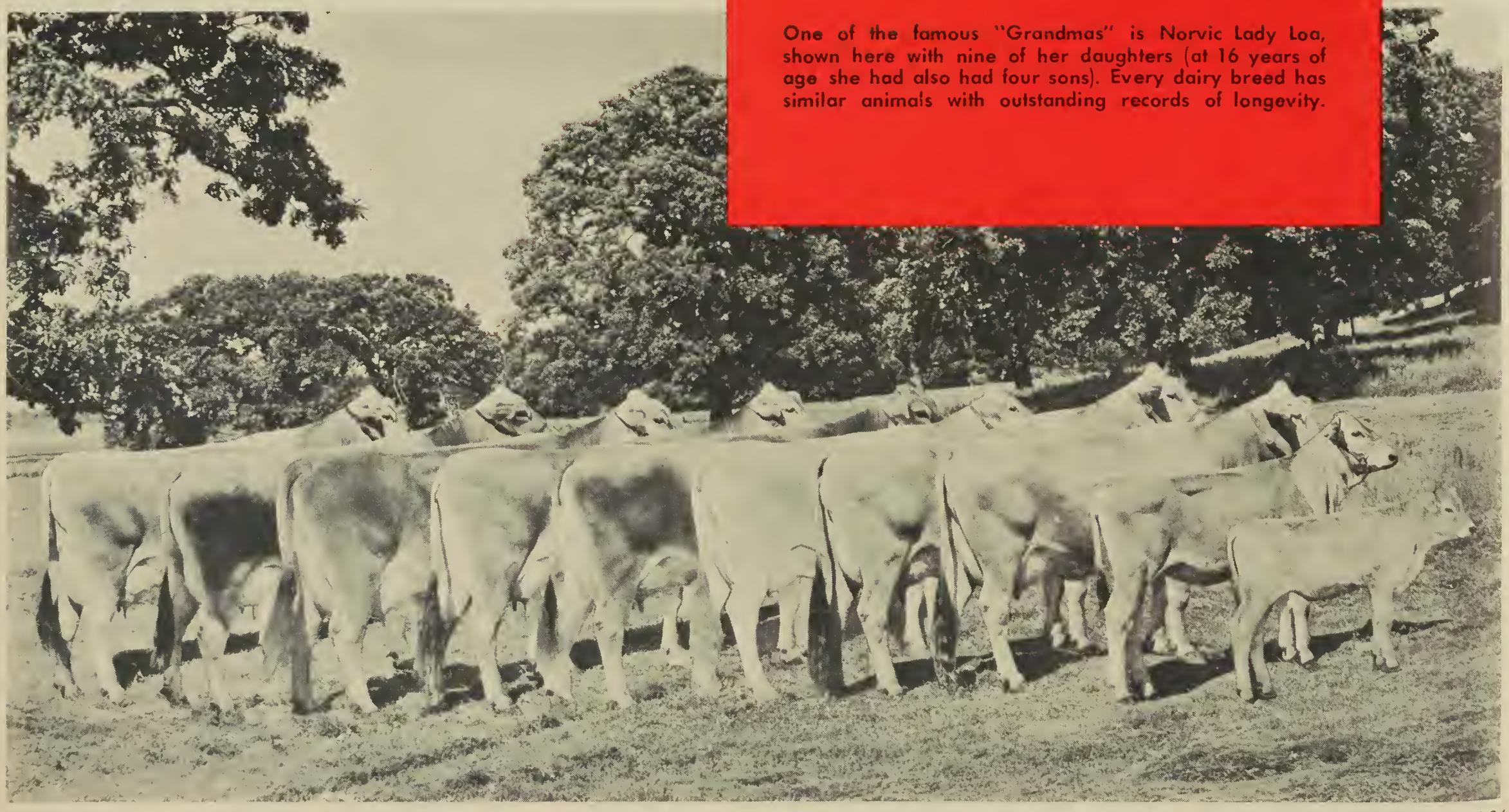
Years ago, Professor Enos J. Perry and I selected eleven registered cows for the State Holstein Sale from the Grade A milk barn of a New Jersey producer. The cows in this barn were examined monthly by inspectors from five nearby municipalities and were considered free from mastitis in every one of the forty-four quarters of their udders, although of course organisms may have been present.

They were all purchased by a Sussex County breeder. The attendant became sick and they were milked late after the sale. On the way home the truck upset, dumping them into the ditch without apparent serious injuries; some got away and were chased.

Upon arrival at the buyer's farm they were tied in an open shed along the barnyard

(Continued on page 35)

*The author recently retired after 41 years as a field representative of the Holstein-Friesian Association of America.



One of the famous "Grandmas" is Norvic Lady Loa, shown here with nine of her daughters (at 16 years of age she had also had four sons). Every dairy breed has similar animals with outstanding records of longevity.

WATER INFORMATION

Here's a list of publications on wells and water systems. Some are available through the Extension Service at the Colleges of Agriculture in the Northeast; others can be had from the U. S. Department of Agriculture.

Connecticut State Department of Health, State Office Building, 165 Capitol Avenue, Hartford, 15.

Private Water Supplies

Agricultural Engineering Department, Cornell University, Ithaca, N. Y.

313 — Temporary Disinfection of Wells and Springs

314 — Spring Development and Sanitary Protection

355 — Water Supplies and Design of Water Systems

Extension Service, College of Agriculture, New Brunswick, N. J.

594 — Water From Home Wells

598 — Potable Water Directions for Disinfecting a Well

The Pennsylvania State University, College of Agriculture, Extension Service, University Park, Pa.

45 — Make Your Water Supply

59 — Home Sewage Disposal — The Septic Tank System

67 — Water Purification — Methods-Techniques-Equipment

Vermont Extension Service, University of Vermont, Burlington

Farm Water Supplies

The above bulletins and circulars are free to residents of the state; a nominal fee may be charged to those from other states.

Also available are the following bulletins and circulars from the U. S. Department of Agriculture. Write to Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.

24 — Individual Water Systems

TM5-297 — Wells

TM5-299 — Well Drilling

436 — Electric Water Pumps on the Farm

674 — Planning the Electric Water System

1978 — Safe Water for the Farm

A Primer on Ground Water

A very complete and well-illustrated publication entitled "Planning Farm Water Systems" is also available from Southern Association of Agricultural Engineering and Vocational Agriculture, Coordinator's Office, Barrow Hall, Athens, Georgia, at $1.00 per copy.



HOMELITE XL-12

World's Lightest Direct-Drive Chain Saw!

Revolutionary new 12-pound* Homelite cuts 12-inch logs in 10 seconds, fells trees up to 3 feet in diameter.

The new Homelite XL-12 weighs a mere 12 pounds, making it the lightest chain saw ever *with so much power*. Trim and perfectly balanced, it'll carry as easy as a six-pack of your favorite beverage. But don't let the light weight and small size fool you. Flick the switch and pull the starter-cord. You've got a he-man Homelite in your hands — with professional power and performance.

Homelite's exclusive weatherproof-ignition-system delivers a "hot spark" that always gives an instant-start — whether the day is hot, cold, dry or damp. And wait until you cut with it. That's the real convincer! See the shower of sawdust. Feel how smoothly the XL-12 slices through a tree. This is your kind of power and performance!

And nothing was sacrificed in getting so much power into such a small package. The XL-12 not only packs power-plus, it also has Homelite's top-professional features — including reinforced die-cast construction that will stand up to the most rugged use.

The XL-12 represents the greatest advance in chain saws in over a decade. When you actually cut with it, you'll realize how really revolutionary it is. Try it, today! You will really be surprised, too, at its low, low price.

HOMELITE A textron DIVISION
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Addison—Addison Farm Equip. Co.—121 E. Front St.
Akron—Blew Equipment, Inc.—32-43 Mechanic St.
Albany—Terminal Hardware, Inc.—1155 Central Ave.
Albion—Bentley Brothers—RFD #2
Altamont—Alfred L. Schager—Star Route
Amsterdam—Joe Bazaar's Machine Shop—RO #2
Amsterdam—Smith Auto Sales—RFD #4—Rt. 30 N
Angelica—Herbert Wagner—Dalton Road —RD #1
Arkport—Francis Gowiski—RD #1
Armonk—Young & Dgden—Main Street
Auburn—Main & Pinckney—RD #6
Avon—Webb Implement Company
Bainbridge—Carlton Loomis—Brackett Lake Road
Baldwin—Home Owners Tool Rental Inc.—500 Merrick Road
Ballston Spa—Perrino Implement & Tractor—RD #4
Ballston Spa—Pettit & Son Equipment, Inc.—Route 50—South of Ballston
Bath—Bath Truck & Tractor Company, Inc.
Bedford Hills—H. A. Stein Tractor & Equipment Co. North Bedford Road
Belfast—Grastorf & Guilford—Main Street
Belleville—Maurice L. Herron—Southern Jefferson County—opposite corner of Post Office
Blasdell—Monarch Sales & Oist. Company—4281 South Park Avenue
Blooming Grove—W. H. Rudolph, Inc.
Bolivar—Bolivar Magneto Company—65 Wellsville Street
Bradford—Fleets on Lake Lamoka
Brewerton—Van Epps—Route 1, Shop #9517
Brewster—The Powerhouse—Route #6
Braircliff—Wallace J. Scott, Jr.—Route 100
Brooklyn—Neptune Marine—2023 Neptune Avenue
Callicoon—John H. Eschenberg—Rt. 17-B
Camden—Willard Rood—6 Mexico Street
Canandaigua—Aldrich Farm Equipment—RD #2
Canastota—Alfred A. Patano—409 New Boston St.
Canisteo—Olson Equipment—58-62 Depot Street
Canton—Arthur Gary—R.D. 4
Carmel—Carmel Lawnmower Repair—Fowler Ave.
Carmel—Nichols Hardware, Inc.—Main Street
Center Moriches—Savage Hardware—383 Main St.
Chaffee—Howard Ellis—Allen Road—R.F.D.
Champlain—Raymond Bedard
Chatham—Chatham Machine Shop—Rte. 203 Church Street Extension
Churchville—Mr. M. E. Fairbanks
Cincinnatus—A. B. Brown Company
Cincinnatus—Robert Dunham—RFD 2—Route 2
Clarence—Williams Tree Surgeons—Townline Road
Clinton—Clinton Tractor & Implement Company, Inc.—Meadow Street
Coeymans—Blaisdell's Repair Shop—Westerlo St.
Cold Spring—Cold Spring Service Center—Chestnut Street—Route 9D
Conklin—Ray E. Goodell—R. D. 1
Cooperstown—Western Auto Assoc.—167 Main St.
Corinth—Main Motors, Inc.—98 Main Street
Cranberry Lake—Cranberry Lake Inn Marina—P.O. Box 85
Croton-on-Hudson—Zoller's Service—87 N. Riverside Avenue
Crown Point—Crown Garage—Route 9
Oansville—K. G. Richmond—22 Dssian Street
Deer River—Francis Nicholl—Saw Mill Road
Delhi—Delhi Farm Equip. Co.—23 Elm Street
Delmar—Hilchie's Hardware, Inc.—255A Delaware Avenue
Deposit—Edwin Hodam, Jr.—Sands Creek Road
Downsville—Joseph Capaldo—Route 206
Duanesburg—Berical's Equipment Co.—RD #1
East Aurora—Aurora Sporting Goods—170 W. Main Street
East Palmyra—J. J. O'Meal
East Pembroke—Ron & Newts Sales & Service
Elma—Pilgrim Equip. Co.—3080 Transit Rd.
Elmira—Cory's H'ware Co.—1548 Lower Maple Ave.
Erieville—Magee's Service
Fairport—Knapp & Trau
Falconer—Schutt's Saw & Mower Shop—135 South Work Street
Fishers Island—Home Appliance Center—Box G
Franklinville—Len's Sharp Shop—10 Green Street
Fredonia—Fredonia Farm Supply—McAllister Road
Freeport—Freeport Equip. Sales & Rental, Inc.—170 West Sunrise Hiway
Fulton—Harold Burton—202 Division Street
Garden City—Worth Supply Co.—270 Nassau Blvd. South
Gasport—C. J. Perry & Sons, Inc .
Geneva—C. M. Neilson & Son, Inc.—481 Hamilton Street
Germantown—Capitol Valley Cont. Inc.—Blue Stores
Getzville—H & E Motors—550 Dodge Road
Glen Head—Countryside Enterprises, Inc.—691 Greenvale-Glen Cove Hwy.
Glens Falls—Burton Equip. Co.—Upper Glen St.
Gouverneur—NESCO (Northern Engine & Supply Company)—RD #5
Gowanda—Gowanda-Harley Davidson Sales—Zoar Road—RFD #1
Great Neck—Gregory Coal & Lumber Company, Inc. —30 Cutter Mill Road
Great Valley—David J. Oavies—Sugar Town Road
Greenwich—L. G. Collins—RFD #1
Hillsdale—Hillsdale Farm Supply Inc.
Holland—Lewis Machinery Service—Phillips Rd.
Hudson—Bame's Marine Supply—190 Fairview Ave.
Huntington Station—Island Power Tool Co., Inc.—152 West Jericho Turnpike
Ilion—Burrill Saw & Tpol Works—401 E. Main St.
Ithaca—Valley Fixit Shop—363 Elmira Road
Johnsonburg—Walter Pope—RFD
Johnson City—Newman Bros. Hardware—257 Harry L. Drive
Johnson City—Oakdale Equip.—716 Harry L. Drive
Johnstown—LeRoy C. Sweeney—RFD #1—Hiway 116
Keene—Gordan C. Wilson—P. O. Box 16
Keeseville—Dan Downs
Kenmore—Kenmore Renting Co.—1297 Kenmore Av.
King Ferry—Roy A. Tuttle, Inc.—P. O. Box 34
LaForgeville—Clarence Comstock—RFD 1—Plessis Dmar Road
Lake Pleasant—Wight's Esso Station
Larchmont—Foley H'ware, Inc.—88 Boston Post Rd.
Lee Center—Stokes Chain Saw Service—RT #26
Leeds—Peter Suttmeier—Sandy Plains Road
Liberty—Gerow Brothers
Long Eddy—Malcolm Crawson—P. O. Box 66
Malone—Elliott & Hutchins, Inc .
Margaretville—Fairbairn Lumber Corporation
Marlboro—States Sarles Sons Inc.—Route 9W
Massena—Douglas LaPoint—Rt. #1
Mayfield—Peter Johnson—R.D. #1 Mountain Ave.
Mechanicville—Brenn's Lawnmower & Engine Shop R. D. #2
Mendon—Saxby Implement Corp.
Middleburg—River Imp. Co., Inc.—Middle Fort Rd.
Middletown—H. L. Ayres—P. O. Box 187
Millerton—Brewer's Mower Sales & Service—Sharon Road
Monsey—John W. Knapp—Route 59—P. O. Box 105
Moravia—LaVerne Marks—34 Central Street
Morrisville—Ralph Pashley—P. O. Box 432
Naples—Francis Bills Garage—RD #1
Nesconset—County Contractors Equip. Corp. 183 Smithtown Road
New Lebanon—Joseph H. Mittnight
New Rochelle—Gundelach's Inc.—388 Main St.
New York—New Hippodrome H'ware—70 W. 45th St.
Niagara Falls—A. W. Bergeron's Garden Shop & Nursery—2594 Seneca Avenue
Niagara Falls—Delta Tool Rental—2901 Military Rd.
Nicholville—Bould's Farm Supply
Nineveh—Maurice M. Wightman Sales & Service—R. D. #1—East River Road
North Boston—Klein Equipment Corp.
North Syracuse—Hytron Lumber & Supply, Inc.—Fay & Allen Road
Odessa—Odessa Farm Equip., Inc.—c/o Stanley Darling—RD #1
Odgensburg—Fred Shurleff's Inc.—Washington & Catherine Streets
Oneonta—West End Imp. Co.—Country Club Rd.
Orchard Park—Site Contractors, Inc. 132 Calif. Rd.
Oswego—Cloonan Small Engine Service—RD #2 Hall Road
Palmyra—Jim's Photo & Hobby Shop
Panama—Weise Hardware & Electric Co.—Main St.
Parish—Parish Hardware—7448 Main Street
Pavilion—P-D Service
Peekskill—Caola Bros.—RFD #2—Compond Road —Rt. 202
Penn Yan—Smith's Farm Store, Inc.—135 E. Elm St.
Pike—Leon Wilcox
Port Gibson—Port Gibson Equip. Co.—P.O. Box 151
Port Jefferson—Vehicle Serv. Corp.—1575 Patchogue Road
Port Leyden—McHale's Chain Saw Company
Port Washington—Manhassett Bay Outboard, Inc.—78 Shore Road
Poughkeepsie—Gifford Power Equipment, Inc. —115 Dutchess Turnpike
Prattsville—Prattsville GLF Service
Rensselaer—Henry Meurs & Son, Inc.—202 B'dway
Riverhead—Long Island Produce & Fertilizer Co., Inc.—Pulaski Street
Rochester—John Feathers—4135 W. Henrietta Road
Sag Harbor—Peerless Marine—Ferry Road
St. James—Molin's Lawn Shop—665 Jericho T'pike
Salem—George A. Jolley—South Main Street
Sanborn—Le Van Hardware Inc.—5856 Buffalo St.
Saranac—Jon T. Ryan
Saranac Lake—Moody's Sales & Serv.—7 Duprey St.
Saugerties—Kenrent—RFD 5—Box 13—Mount Marion Rd.
Savannah—Dickens Bros.
Schenectady—Carman Paint & Hardware—207 Campbell Road
Schenectady—King Trac. Co., Inc.—145 Cordell Rd.
Schenectady—Mahoney Co., Inc.—209 State St.
Schroon Lake—Lakeview Outdoor Center, Inc.—U S Route 9
Scotia—Wayside Acres Home & Garden Center—209-211 Sacandaga Road
Skaneateles—Bobbett Implement & Tractor Co.—Fennell Street—Box 98
Smyrna—John E. Blanchard—Route 80—Main St.
Southampton, L.I.—Wm. A. Frankenbach Garden Center—North Hwy. North Main Street
Sodus—Delyser Bros.
Speculator—Gerald Buyce
Springville—Warner Lumber Mill—R. F. D. #1
Stamford—Eklund Farm Machinery—P.O. Box 216
Staten Island—Forest Equip. Co.—1319 Forest Ave.
Staten Island—Trimalawn Equip.—2081 Victory Blvd.
Staten Island—United Rent-Alls of Staten Island—3874 Richmond Ave.
Stone Ridge—Dedrick Pow. Equip. Co.—Cottekill Rd.
Summitville—L. Findle & Son, Inc.—Route 209
Sylvan Beach—Koster Building Supplies, Inc.—9th Avenue
Syracuse—Alex. Grants' Sons—935 Erie Blvd. East
Syracuse—Reliable Farm Supply, Inc.—2083-85 Park Street
Tarrytown—County Power Tool Company—625 White Plains Road
Thendara—Dan Hudon—Route 28
Troy—E. J. Goyer—R. D. 1
Trumansburg—Millspaugh Brothers—Cayuga St.
Tupper Lake—Herve St. Onge—P. D. Box 895
Warrensburg—Carl R. Kenyon—Route 28
Warwick—Walter Equipment Company
Waterloo—Seaway Marina, Inc.—473 Waterloo-Geneva Road
Watertown—White's Lawn Supply—RD #4 (c/o C. Howard White)
Wayland—Gross & Oidas—12 Main Street
Wells—Floyd Simons—Box 138 Old Wells-Speculator Road
West Albany—Abele Tractor & Equipment Company —72 Everett Road
West Hampton Beach, L.I.—West Hampton Fuel—112 Montauk Hwy.
West Henrietta—James R. Hanna, Inc.—6800 West Henrietta Road
Westport—Marshall F. Fish—P. O. Box 14
West Winfield—West Winfield Farm Supply
Whitehall—Norman H. MaCleod Saw Shop—Comstock Road
White Plains—The Lafkin's Golf & Lawn Supply Corp.—1200 Mamaroneck Avenue
White Plains—Pickard Hardware, Inc.—203 E. Post Road
Whitney Point—H. A. Penningroth & Son
Williamsville—Bitner Tool & Supply Co.—74 Cranburne Lane

NEW JERSEY

Allendale—Allendale Equip. Co.—317 Franklin Twp.
Allenwood—Sigler's—Rt. #34 Spring Lake Circle
Bayonne—Allied Equip. & Supply Corp., Inc.—691 Broadway
Bayville—Dover Sup. Co.—Box 225—Mill Creek Rd.
Bergenfield—Bergen Rental Service, Inc.—150 South Washington Avenue
Blairstown—J. C. Roy & Son
Branchville—The Roy Company
Camden—Antrim Hardware Co.—1514 Federal St.
Cliffside Park—Halton Hdwe.—666 Anderson Ave.
Clinton—Philip G. Berger—Box 5286—Route #22
Cranford—Andy's Handy Service—117 South Ave. W.
Dover—Handymans Tool Shop—Centergrove Rd. & Route #10
Eatontown—Grasslands, Inc.—Box 94
Elizabeth—A-M Tool Rental—69 Cherry Street
Englishtown—Joseph J. Szczepanik—Union Valley Road
Fairview—Edge Grinding Shop—388 Fairview Ave.
Freehold—Roberson's—South Street
Garfield—Ralph's Hwg. Serv.—Rt. 46 & Boulevard
Gladstone—G. F. Hill & Company
Hackettstown—M. B. Bowers & Son, Inc.—128 Willow Grove St.
Hammonton—Parkhurst Farm & Garden Supply—301 North White Horse Pike
Hanover—Do It Yourself, Inc.—Route #10
Harrison—H. I. Karu—215 Harrison Avenue
Hazlet—The Service Equipment Co.—Box 8
Hewitt—Sportman's Boats & Motors—W. Shore Rd.
Hightstown—C. H. Roberson, Inc.—Rt. 33—Mercer Street
Kearny—Morris Hardware & Paint Supply Co., Inc. —101 Midland Avenue
Lambertville—John Kurtz—R. D. 1
Lawrenceville—Lawrenceville Hardware Company—2667 Main Street
Ledgewood—New Jersey Lawn & Power Mowers Equipment—Route 46
Little Ferry—Ted's Lawn Mowers—15 Riverside Ave.
Madison—Tractor & Lawn Mower Sales & Service —331 Main Street
Maplewood—Gauthier Door Check—2 Burnett Ave.
Medford—Fred Myers, Jr.—RR #2—Box 304
Middletown—Monmouth Mower Shop—656 Route 35
Monroeville—Albert Weber—Route 538—Swedesboro-Franklinville Rd.
New Brunswick—Frank's Building Supply Co.—659 Somerset Street
New Egypt—J. R. Caines—Route #539
Northfield—Vic Collins—2101 New Road
North Plainfield—United Rent-Alls—714 Route #22
Oakland—Bergen Power Equipment—593 Valley Rd.
Old Bridge—Old Bridge Tractor—RFD—Box 328
Old Bridge—William J. Rainauad—Box 95—Hiway. 9
Paramus—Artie's Hardware & Machine Shop, Inc.—495 Paramus Road
Penns Grove—R. F. Willis Co., Inc.—7 Oak St.
Pine Brook—Shulman Tractor Co., Inc.—Route 46
Pompton Plains—Livingston Sport Center—Route 23
Princeton—Town Saw Shop—Tulane Street
Princeton Junction—Grover's Mill Company
Riverton—Riverton Fm. & Garden Sup. Inc.—Rt. 130
Roseland—Needham's Grinding Service—191 Eagle Rock Avenue
Short Hills—Millburn Grinding Shop—658 Morris Turnpike
Sparta—Sparta Hwd.—182 Woodport Rd.—Rt. #15
Summit—Glenjay's Mower & Garden Shop—385 Springfield Ave.
Sussex—Len's Service Station—R.O. 1
Trenton—United Rent Alls—1690 Pennington
Tuckerton—Margraf's Hardware—North Green St.
Union—Rent-A-Tool—Route 22
Vincetown—Wells Mobile Service—Route #206
Vineland—Swanson Hardware Sup.—533 N. E. Ave.
Waterford—Rusnak Bros. Inc.
Westfield—Storr Tractor Co.—469 South Ave. E.
Wharton—J. W. Malson, Sr.—Route 15 (RFD 2)
Williamstown—Weed's Lawn & Garden Mart—311 South Black Horse Pike
Woodbury—Arber's Lawnmower & Engine Service—962 North Broad Street

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VEGETABLE GROWER

I've used plastic for the fourth crop year now and found it helps produce heavier melons and cuts down on hoeing. In 1963, we put plastic down when the ground was dry and planted within two days. It was just too dry; some plants died and we had to water others — the plants without plastic did better. This year, we put plastic on the land three weeks before planting to "lock" moisture in. We had so much wind this season that it's been a time-consuming job to put back plastic that began blowing away.

We lost 4 acres of Fireball tomatoes to frost on June 4 this year. They were intended to hit the early market by about July 23.

Greenhouse tomatoes are another of our enterprises, 1,100 plants in one house and 900 in another. We began harvesting them just before Decoration Day, and continued to market them until August 10; the price usually drops then because the field-grown crop comes in heavily.



Ray Wondergem with some of his fine greenhouse tomatoes.

Plants are set in the greenhouse between March 22-30. The row spacing alternates 30" between two rows and 35" between the next two, then back to 30", and so on; plants are 17" apart in the row. Manure has been spaded in the soil and fertilizer (10-52-17) is added every 7 to 10 days at the rate of four pounds per 1,000 square feet. Heavier use of nitrogen is made later. Some plants have yielded as high as 50 tomatoes each, but ten pounds per plant is average.

Up until plants are three feet tall, we shake the vines periodically to help with pollination. The variety used, Waltham Hybrid, has to be pinched off at the end to make it stop growing at the seven foot trellis height we like. We use no sprays on greenhouse tomatoes.

On May 20 we put down a straw mulch in the greenhouse to prevent splashing soil organisms from soil to fruit when watering plants with a hose. Graywall can be a problem, but nobody seems to be sure just what causes it or how to prevent it.

Up to June 24 this year, there were only three nights since setting tomato plants that heat was off in the greenhouses. We sometimes leave the vents open and the heat on; we don't like the temperature to drop lower than 55 degrees Fahrenheit. If we have a cool night and moisture were allowed to condense on the plant leaves, a spot leaf epidemic could start and give us real problems. — **Raymond Wondergem, Hilton, New York.**

Personal Farm Experience

The items on this page all come from the firing line of farm production.

LIKES MOW DRIERS

We bought our first 7½ horsepower mow drier in 1956. It was used to dry about 65 tons of hay a year until 1962 when we bought our second drier. At the present time, we use commercial flues and a slatted floor for one drier on the end of a 36 foot-wide two-story barn. The other drier is moved from a position in a story-and-a-half barn drying first cutting to a crossway position in the two-story barn. Here it is used to dry our second cutting.

We put up annually about 11,000 bales, each 30 inches long and averaging about 32 pounds apiece when they are dry. We use a bale thrower and a mow conveyor. For the last two years we have been able to hire help by the hour to pack bales in the mow. We have made short bales and let them drop without packing; will do it again if help isn't available.

With our mow drier, we have put hay in the barn the same day it was mowed and crushed if the weather was good. When hay is dry enough to rustle and it is somewhat fluffy in the windrow, it should be raked. I test hay for dryness before baling by seeing if the driest of the stalk and leaf are beginning to break and most of the heaviest bunches are losing their grass-green color.

The bales should be loose enough to put your fingers into the cut side of the bale. Another test I use is drawing the strings together with my thumb and middle finger. I think it is better to put hay on a drier too dry rather than too green. In any case, it should be baled before it starts to shatter or the leaves fall off.

The reason we use a mow drier is because we like the results we get from feeding mow-dried hay to our cows and young cattle. We have had our haying done in June for several years; the amount of rain damage is much less. We have more hay to put in the barn because of less loss in the field, and we are finished first-cutting in time to grow a good second crop.

We have built our number of cows up to 48 and our herd average is still climbing; at present it is 15,300 milk and 554 fat. I don't really know how much credit the mow driers should get, but I believe the savings we make feeding nice leafy mow-dried hay cut in June would buy a new mow drier for us every year. — **Bernard Hill, Lowville, New York**

COW FEEDING PROBLEMS

Big, high-producing, aggressive cows make some trouble by annoying the cows next to them when fed during milking in a herringbone milking parlor. This bothers most when cows in various stages of lactation are milked together, and where you try to limit the amount of grain fed to those in the last stages of lactation.

I have tried several remedies. An electric fence wire to keep them from getting their heads on the next cow's back helps some, but it makes a sensitive cow nervous.

One thing that has helped on this farm is to divide the herd into two groups, with the heavy producers and fast milkers in one group and the less-aggressive cows in another. Half the herd is in a conventional stable, and half are in a pen stable. Of course, we can do this better than in a small herd; we have 110 milkers.

Some dairymen, I hear, have quit feeding while milking. Where the cows are in stanchions, they feed them there, and sometimes where loose-housed they feed corn ear silage free choice without trying to feed cows individually. One refinement of this method is a field chopper which chops one row of corn and adds only the ears from the next row to make a richer silage.

Purchased feed costs money, and I find that it is important not to overfeed. One method I use is to mix in some good alfalfa with home-grown grain when the custom grinder arrives. The cows clean up the mixture readily. — **Henry Faryna, Perry, N. Y.**



Frank Mack admires a heavy crop of sweet cherries.

FRUIT GROWER

We have 50 acres of fruit trees; 35 acres are young non-bearing trees. All newly-planted apple stock is dwarf, except for a few Twenty Ounce on regular rootstock. These latter are planted with a 20' x 20' spacing; they will be trimmed up tight for a number of years and some taken out as they grow larger. As for the dwarfs, we have used 22.5' x 22.5' spacing on some, 20' x 25' on others. We think Red Delicious has been overplanted so have stayed away from that variety.

We are planting prunes, knowing of a market and aware that they require only 4 sprays vs. up to 13 on apples. Prune harvest comes between cherry and apple harvest, helping on labor distribution.

We know that our small operation can't compete on a volume basis, so we shoot for top quality on the fresh market, and therefore top price. Northern Spies are hand-thinned to give best size and to prevent bearing every other year — ours produce a crop every year.

Sour cherries didn't look good to us so we pushed ours out and planted sweets; Napoleon is the variety we like best. We disk and drag in the cherry orchard and topdress with horse manure. Hydrated lime is used as a dust to prevent cherry cracking; we also think clean cultivation somehow helps prevent this problem. Ammonium nitrate is used for fertilizer in March as early as we can, the amount depending on size of tree.

Amizine has been doing a good job of weed control around trees, applied with a hand gun.

I have worked as a toolmaker in the city of Rochester for years, but always wanted a farm. Now I work on the farm, but still continue my full-time job in the shop. We've been on this 50 acres for 12 years now and have had the same hired man for 10 of those years. Over that time he has had four or five husky raises in pay and he gets a sizable Christmas bonus every year. — **Frank Mack, Hilton, N. Y.**



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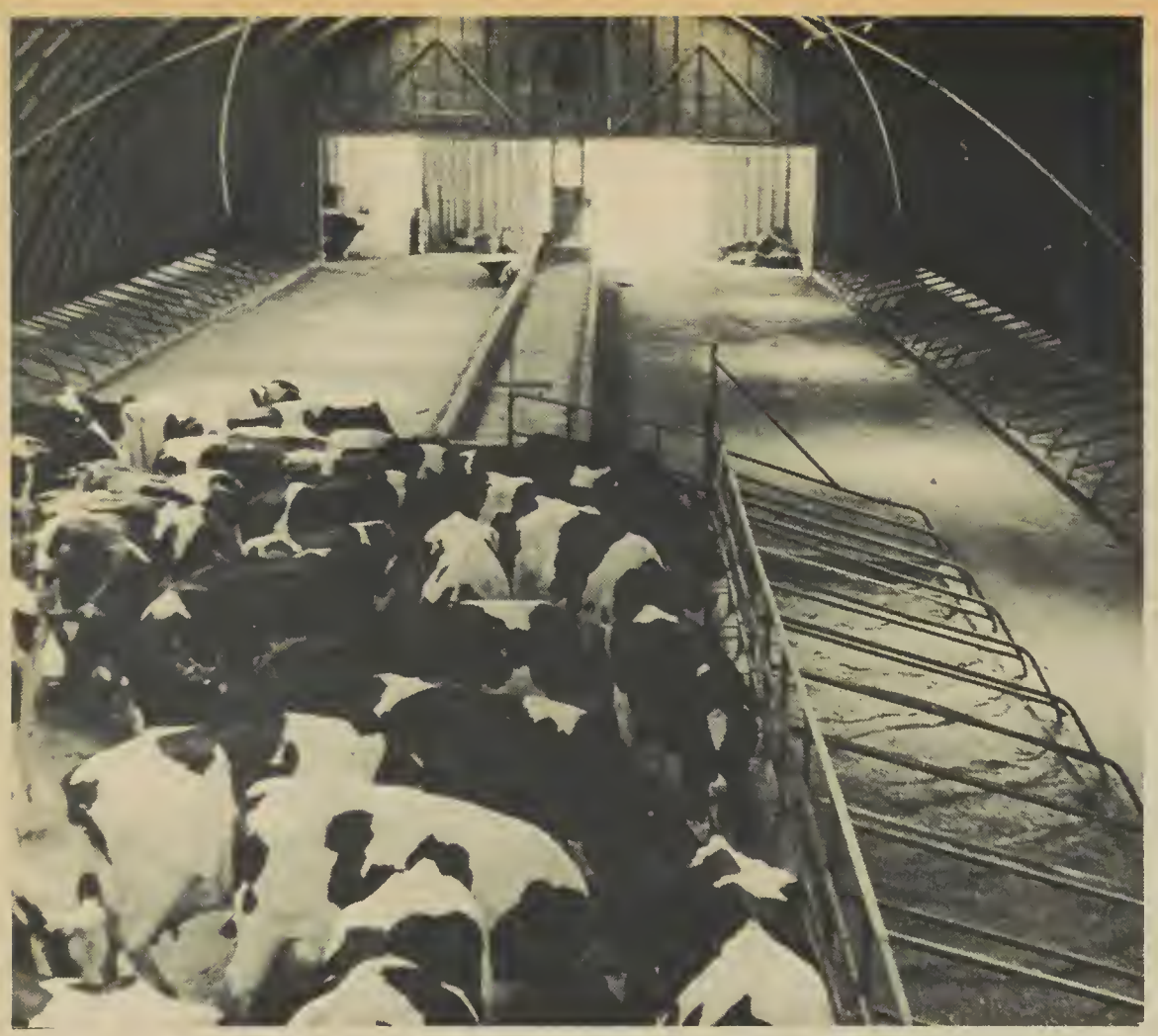
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The interior of the Engst barn.

A TALE OF TWO BARNS

by Bill Quinn*

THE TWO BARNS stand but a football field apart. One is typical of the barns that dot the Northeastern dairy states, the kind dairymen call a "conventional" barn — a basement stable topped by mow storage; the other appears at first glance like a large quonset-arched machinery shed.

Let's look over the first barn. A carpenter's eye would sight it "square and true," 36 feet wide, a little over 100 feet long, flanked by two 16 x 36 feet silos. Inside the stable are about 50 tie stalls — long and wide enough for big Holsteins — a good floor, forced air ventilation, a gutter cleaner, lights and water. Attached to the stable is a modern milkhouse with a 500-gallon bulk tank, water heater, and washing equipment.

What do *you* think? Is this barn obsolete?

Orville ("Bud") Engst, the Fabius, New York, dairyman who owns it, thinks it is! Listen to what he says:

"Trying to tie today's automation to that 100-year-old cow barn is like trying to put a 1964 engine in a 1924 car; one is just not designed for the other.

"No, that old barn is not worn out; in fact, keep the roof and foundation repaired and it'll probably never wear out. But it has become obsolete!"

This Central New York dairyman has for 25 years been uniquely successful in operating a large dairy farm in Onondaga County's Apulia Valley. Actually, the operation consists of two dairy units, a conventionally-housed herd on the main farm and a free-stall unit with milking parlor on a second farm, the latter capably managed by Bob Fields.

Some Changes

At least that's the way it was up until last year, when Bud decided to turn into reality his ideas on how dairy cows should be housed and cared for. Those ideas were the results of years of experience with both conventional and loose housing, of months of thinking and planning, of visits to dairy farms throughout the country, of discussions with other dairymen, county agents, agricultural engineers, equipment salesmen. What kind of a barn do you think he built?

Well, let's look at barn number two — rather unusual as dairy barns go — 200 feet long, 60 feet wide, with laminated rafters supporting the quonset-arched roof. Attached to one end is a 20 x 50-foot shed cornered by a 30 by 50 cement stave silo. At the opposite end, and on a lower level, adjacent to the drive, is a 20 by 30 foot milkhouse. A 10 by 20 foot office and utility wing, with manure spreader pit beneath, completes the exterior view.

Bunk Feeding

Inside, a 100-foot concrete silage bunk splits the barn lengthwise from the silo end. On the opposite end, next to the milkhouse but within the main barn, a 20 by 30 foot ten stall herringbone parlor is topped by a 70-ton bulk feed bin. Along each wall, down the length of the barn, stand free stalls — a total of 110.

This is the kind of a barn that Bud Engst built. It was his belief in this kind of a barn that brought him to the decision to "scrap" his conventional stanchion barn. Actually, the barn is scrapped only from the standpoint of milk cows; it's still used for dry cows, young stock, and storage.

Many of the features found in the new barn are evidence of the careful planning that preceded construction. Here are some of them, with Bud's comments:

- A 10 stall (5 on a side) herringbone milking parlor. The milking pit was designed one foot wider than most to provide ample room for two men, each milking on one side only. A low level milk and air line and individual units for each cow keep the center of the pit free of hoses.

 "You're not thrown off balance and you don't have to be ambidextrous when you're milking on one side only. The obvious disadvantage, of course, is that you have to pay for the five extra units. But a man milking on one side only can get to know the cows easier. Eighty percent of ours come in the same side, night and morning."

- A manure spreader housing at a lower level. Alleys and holding area are scraped daily directly into the spreader. The slope of the land affords required drainage from the spreader pit. Cleanout time — about 15 minutes.

 "We use a 'sidewinder' spreader and two tractors, one to scrape and one on the spreader. The sidewinder takes more power, but it doesn't leak or plug. The manure pit is insulated — and closed up in winter so it doesn't freeze."

- A holding area large enough for 90 to 100 cows. Gates between feeding area and milking parlor form a holding area; swing back for easy cleaning.

 "There's almost no hand scraping. We have the cows step up one step into the parlor, so that we have a backstop for our tractor shovel."

- Free stalls that fit the cows. Stalls are 4 feet wide, 7 feet eight inches long (outside curb) ample for Bud's big Holsteins.

 "Every stall but two can be loaded with sawdust with our unloading wagon. The stall dividers are shaped to allow the unloader to clear. We filled the stalls last fall; added bedding twice during the winter. The stall dividers went in easily. We attached them to our Rilco rafters, which are spaced 4 feet on-center."

- Electric ventilation. A 36-inch ventilating fan helps eliminate problems with condensation. High ceiling (25 feet to ridge) and control of openings complete the job.

 "We're adding a second fan this winter — this one in the ridge. Last year we had to open up some doors to control moisture."

- Plenty of light and water. Sixteen plastic roofing sheets on the southern side, eight on the northern side maximize exposure to sunlight. A water tank adjacent to the holding area permits access to water both on the way in and out of the parlor.

 "If we were doing it over we'd make our water tank a little shallower. It would keep the water fresher."

- A durable, easy-to-clean concrete feed bunk. Dimensions — 28 inches high, 5 feet wide, 16 inches deep. A step 4 inches high and 16 inches wide at base of bunk serves as "running board" for unloading wagon; prevents cows from "diagonal parking!" A hot wire is suspended above center of bunk.

 "We stayed away from an auger; it's one more piece of equipment, and one more thing to break down. We had the self-unloading wagons for filling the silo, and we figured we might as well use them; besides, some material is hard to feed with an auger, and it makes the bunk a little harder to clean.

 "About that 'running board' — I got the idea from an equipment salesman, and it's sure a slick idea. It eliminates the boss cow problem at feeding. If she turns, one foot goes off the step — and a cow won't push with one foot up and one foot down. With the step, cows won't back up to the bunk and dirty it. Also, it brings the unloader up high enough to fill the bunk readily."

- Flexibility of use. Cows enter the parlor straight, and go out either side. The bunk can be used for either greenchop or out-of-storage feeding. Space is provided to hold sick cows and cows in heat.

 "Like most farmers, our program varies with conditions. We like pasture, but if dry weather comes we're 'geared-up' for greenchop or supplemental feeding.

 "We keep this barn filled with milkers. They freshen in the old barn, and go back there when dry."

There has been no mention of hay storage — and it's not an oversight, because this barn is designed for an all-silage feeding program. The concrete feed bunk is filled once daily from the 1,000 ton silo. A second silo looms high in plans for the future. One silo will store grass; the second corn.

Many dairymen would question a feeding program without hay. Bud admits that his program does not stress individuality, and that he may sacrifice production on some cows, but believes he more than makes it up in greater efficiency. And neighboring dairymen who have seen the Engst herd producing at the 14,000 to 15,000 pound level find it difficult to believe that production suffers very much!

The Engst barn hasn't been in use very long, and can hardly be said to have met the test of time. But its owner is convinced that he's found the way to house and handle milk cows. "I wish I'd built this barn twenty years ago," he says, and adds: "We use two men in the parlor, and an hour after breakfast they're through with the morning chores. The cows are contented with once-a-day feeding — and so am I."

This, then, is our tale of two barns — a "modern" conventional stable, perhaps like the one you own; the other a new concept in dairy cattle housing — a concept that requires an investment of $500 per cow to bring into being. Can a dairyman afford to make this investment? Or can he afford not to? And how about that first barn? Is it obsolete?

MASTITIS HELPS

Two inexpensive publications have recently appeared that can be of great value to veterinarians and farmers in dealing with mastitis. The first is "Current Concepts of Mastitis," published by the National Mastitis Council, whose address is 440 East Ogden Avenue, Hinsdale, Ill. The price is $1.10, prepaid.

Another publication is "Milking Management and Its Relationship to Milk Quality." This can be obtained free so far as single orders are concerned from Public Service, University Hall, 2200 University Avenue, Berkeley, California.

American Agriculturist, September, 1964

* Associate County Agricultural Agent, Onondaga County, N.Y.



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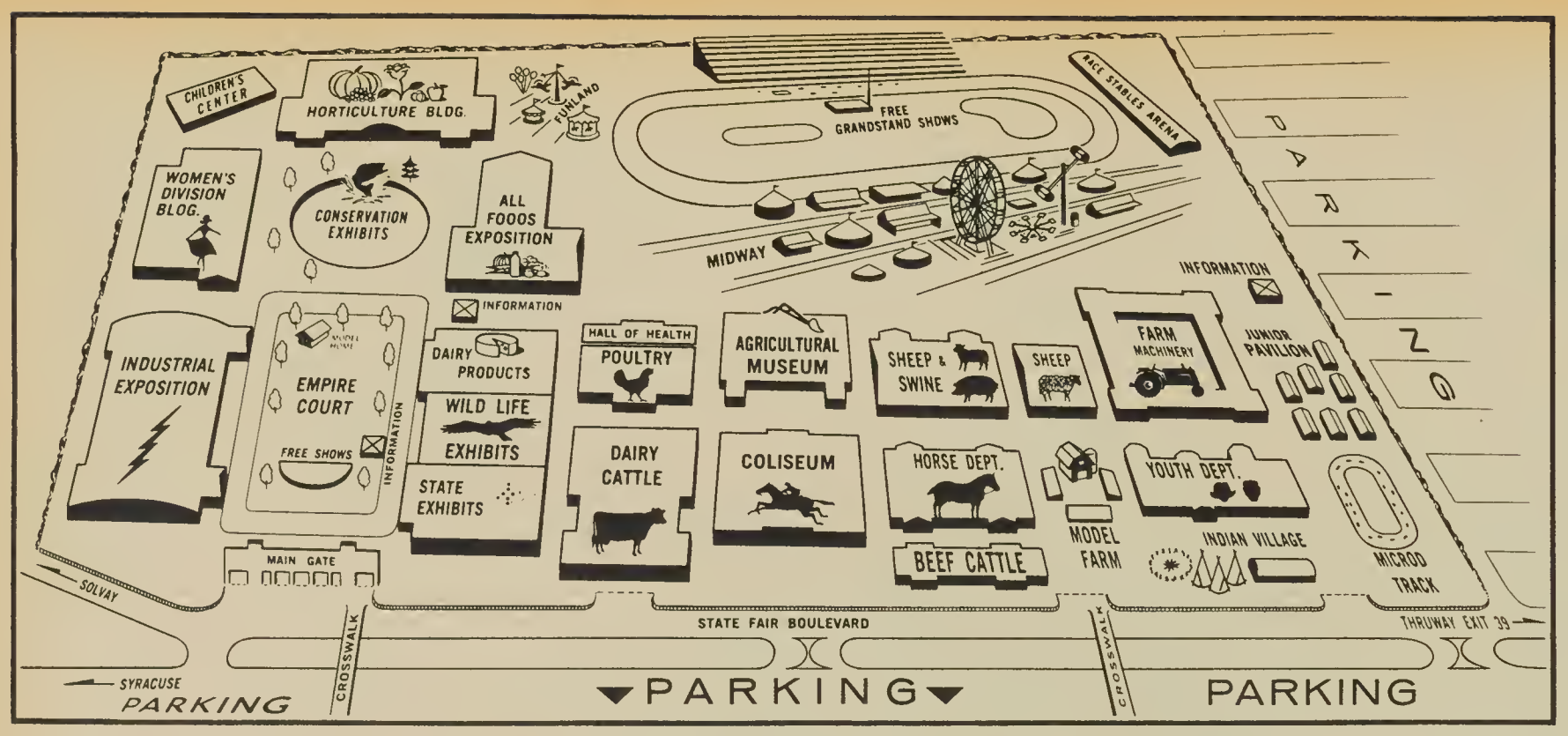
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Niagara Oats	N.Y., Pa.	2-4 days later than Garry, stiff straw, high yields.
Cornell M-3 Seed Corn	N.Y., Pa.	High yields, well placed ear. Tops for silage.
Pa. 290 Seed Corn	N.Y., Pa.	Strong stalk, high grain and silage yields.
Ind. 654 Seed Corn	N.J., lower Hudson Valley	Vigorous, good standability. Grain or silage.
N. J. 9 Seed Corn	N.J.	Drought resistant, good ears, fine for grain or silage.
Essex Timothy	N.Y., Pa.	Leafy, 5-7 days later than Climax, ideal with Empire trefoil.
Grazer Sorgo-Sudan	N.J., N.Y., Pa.	Leafy and tall, for green chop, grazing or ensilage.

*Limited supply for 1965



EXPOSITION HIGHLIGHTS

The 1964 New York State Exposition in Syracuse is offering $150,000 in premiums, with more than $135,000 reserved for winners of agricultural events. It opens Tuesday, September 1, and continues through Labor Day (Monday, September 7) seven days and seven nights. All buildings and exhibits will be open from 10 a.m. to 10 p.m. daily.

Half-price tickets will be available in more than 1,000 outlets across the Empire State, wherever the "Big E" sign is displayed. They will remain on sale through Monday, August 31, the day before the Exposition opens.

Samuel T. Slack of Cornell University, back after a year's sabbatical leave, is again general superintendent of the dairy cattle department, which is offering $26,850 in premiums for 1964. This department, along with its beef cattle division, was one of the nine setting new individual highs in entries last year, a total of 2,059.

Over the years, the Exposition has built up the dairy and beef cattle show with the help of such experts as Slack, Harry R. Ainslie and Myron D. Lacy, his able assistants, to the point where today it is regarded as the finest in the East. It also has the biggest Holstein-Friesian division in the country.

The sheep department is offering $6,961 in premiums, according to Warren F. Brannon, superintendent. The swine division, also supervised by Brannon, lists $4,587 in premiums.

The quality meat contests will be supervised again by Ellis A. Pierce of Ithaca; auction of the champion carcasses will take place at 4 p.m., Thursday, September 3. This year, this division will award premiums totaling $1,835.

Charles N. Burmaster, head of the poultry, pigeon, rabbit and cavy department, expects to top his 1963 entry record of 6,573. Entries will be competing for $11,174 in premiums.

Exhibits

A new superintendent, William R. Sliva, an instructor at Morrisville Agricultural and Technical Institute, heads the Dairy Products department, which is offering $2,400 in premiums.

Due to the death earlier this summer of veteran Exposition official Harold J. Evans of Georgetown, Gerald Blair, Jr. of Solvay, the village adjacent to the grounds, has been named superintendent of the Horticulture Building. For the past seven years he has been assistant superintendent. The fruit department will give $4,300; the flower show, $10,746; and the farm products division, $4,777.

Forage and grain exhibits, set up last year as a new event, will be returning again to the Farm Machinery Building. Here, farmers can check with experts regarding hay, silage, field crops, seeds, etc.

The Youth Department, as always, will be one of the most popular divisions. Last year it attracted entries from more than 4,000 young people from 55 counties. It is responsible generally for about one-third of all the Exposition entries — there are more than 10,000 of them. This year, says Wendell E. Fields, veteran superintendent, the participants will share in $28,779 in premiums.

The annual Square Dance Festival and Contest will be held on



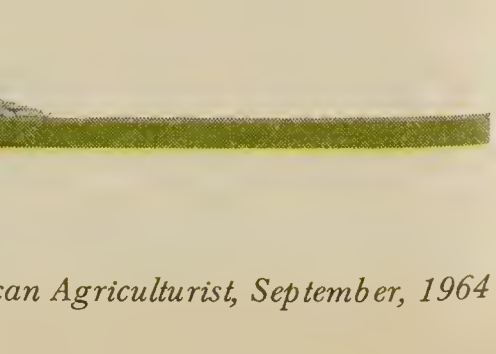
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"I'm a Pioneer fan. But believe me, guys, even if I wasn't . . . these *new* Pioneer saws would make me one! The engineer boys called me in to test each saw in the line before they went into production. And, Holy Cats, but they're great. They feel good in your hands. Swell balance. And they saw like crazy. Whatever kind of cuttin' you have to do, you can depend on doing it better with a new Pioneer. I say, try 'em!"



Thursday, September 3, in the Coliseum. Robert W. Brundage, Danbury, Connecticut, will be the caller, and the music will be by the Pioneer Trio, also of Danbury. Premiums totaling $600 will be awarded in the contest's three divisions.

The International Horse Show, second only to the annual Madison Square Garden event, this year will offer approximately $30,000 in awards. Due to the large number of classes and entries, some performance and breeding classes will be held on Sunday, August 30, and Monday, August 31, prior to the opening.

In addition to the horse show, there will be two days of racing on the Exposition track. Quarter horses and Appaloosa events will be held on Wednesday, September 2, and on Thursday, September 3, harness racing will return after an absence of 12 years. This program will offer $12,000 in purses, and is being sponsored by the New York State Harness Breeders Association. There will be six races on the program, stake races for two and three-year-olds, as well as overnights for aged horses.

The Industrial Exposition will feature an exhibit of the Gemini two-man space capsule and other outstanding industrial displays, while the Poultry Foods Festival will be among the highlights in the All-Foods Exposition.

Entertainment

The entertainment program will be the biggest ever. Top name entertainers will be featured in free Empire Court shows, with the Grandstand reserved for an auto thrill show, stock car racing, and a demolition derby.

Featured on opening day in Empire Court will be Oscar Brand, "the folksingers' folksinger;" Jon Gaines; the Shanty Boys with Roger Sprung; and the Newport Jazz Festival All-Stars, in four two-hour shows, 11 a.m., 2, 5 and 8 p.m.

Starring on Wednesday in three shows will be Bobby Rydell, teenage singing idol, while on Thursday and Friday (also in three shows daily) the spotlight will be turned on the "China Doll," Ginny Tiu, and her brother and sisters, "The Happy Little Tius."

Hank Williams, Jr., following in the footsteps of his late great father, one of the finest country and western singers the country has ever known, will appear in three shows on Saturday.

On Sunday and Monday the Italian tenor, Sergio Franchi, will entertain. The talented performer has taken this country by storm during the past two years. In recent months, Franchi has appeared on television shows with such fine personalities as Victor Borge, Bob Hope, and Meredith Wilson. Franchi will also do three free shows daily.

From Wednesday through Monday, the '64 Fun-E-Revue, with leading vaudeville acts, will also be staged at Empire Court, and there will be daily concerts by the New York State Pops Concert Orchestra with Carl Silfer.

Thrills and Spills

From Tuesday through Sunday in free shows at the Grandstand will be Swenson's Thrillcade; the annual New York State Championship Stock Car race will start at 1 p.m. on Labor Day; the Demolition Derby at 7:30 p.m. the same day. The car races and the Derby are the only pay shows at the Grandstand.

EXPOSITION EXHIBITORS

Here is a list of "agribusiness" exhibitors at the New York State Exposition. Stop and visit with them for ideas on how to do a better job of farming and homemaking.

Farm Machinery Building

Badger Northland, Inc.
Beatty Bros., Inc.
Central Tractor Parts Co., Inc.
Chapman Metal Fabricators
The Cobey Corp.
H. W. Cook Farm Service, Inc.
Cornell Manufacturing Co.
Craine, Inc.
East Main Garage
Empire McCulloch Co., Inc.
Fairmount Sewing Center
Farmhand
Gould Pumps, Inc.
G. H. Grimm Co., Inc.
Hoffman Seed and Grain Co.
James Manufacturing Co.
Lamphier Lumber Co., Inc.
Lehara Equipment Co., Inc.
Paul Mueller Co.
New Holland Machine Co.
Roy K. Ottman
Owatonna Manufacturing Co.
Standard Equipment Inc.
Tractor Land Roller Co.
Uebler Milking Machine Co.
J. S. Woodhouse Co., Inc.

Dairy Building

American Agriculturist
American Breeders' Service, Inc.
Babson Bros. Co.
Craft Manufacturing Co.
Curtiss Breeding Service, Inc.
Dairymen's League Co-op. Inc.
DeLaval Separator Co.
Dutch Hollow Foods, Inc.
Eastern Milk Producers Co-op Ass'n, Inc.
Genesee Laboratory, Inc.
Hinman Milking Machine Co.
Joseph B. Karee
Metropolitan Cooperative Milk Bargaining Agency
Mojonnier Brothers Co.
New York Artificial Breeders' Co-op., Inc.
Technical Industries, Inc.
Universal Milking Machine Div.
Zero Sales Corp.

Horticulture Building

Empire State Potato Club
Kelly Brothers Nurseries, Inc.
Kelly Sales
New York State Maple Producers' Ass'n, Inc.

Outside Space

Babcock's Motor Sales, Inc.
Beacon Falls Distributing Corp.
Buck 'N' Bum
George Bozinis
Corostone Silo Co., Inc.
Dairymen's League Cooperative Ass'n
Esco Cabinet Co.
Bernard Dutch
Hales & Hunter Co.
New York Sealed Storage, Inc.
Nold Farm Supply
Ribstone Silo Co.

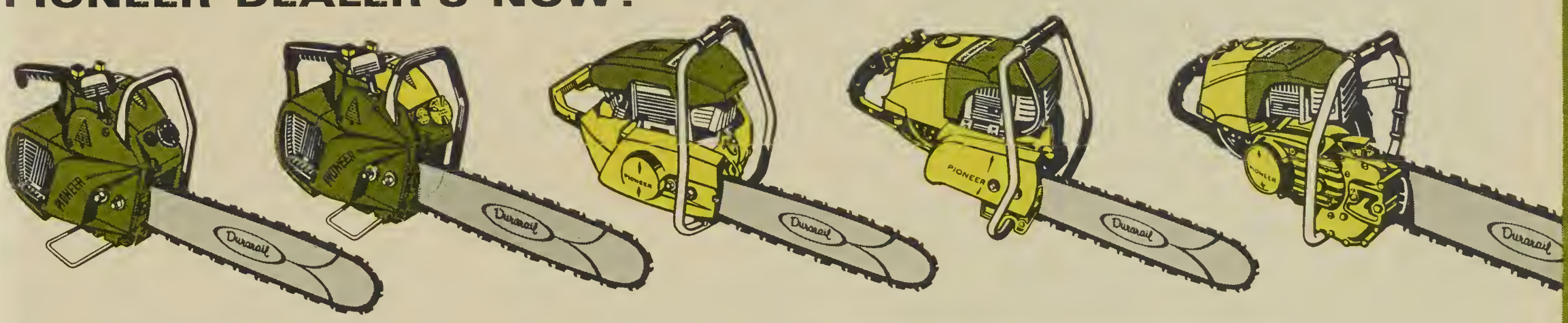
The police officer questioned the truck driver who had just run over a small foreign car:

"Didn't you look where you were going?"

"Yes sir. I looked upward, frontward, backward, and sideways – but I never thought of looking down!

long life chain saws

PIONEER DEALER'S NOW!

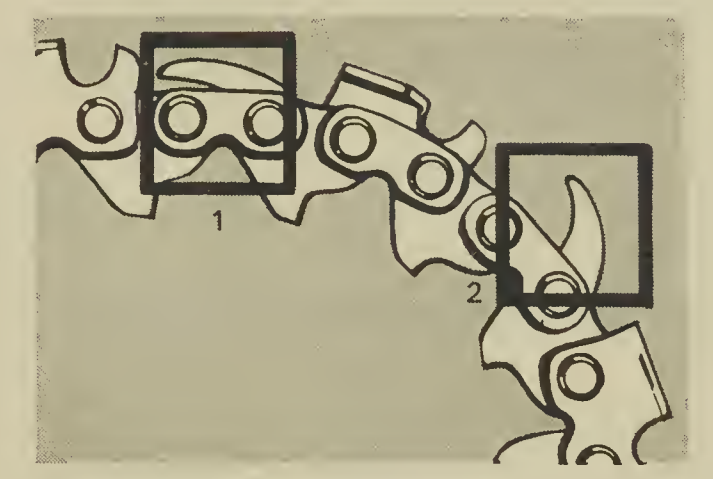


PIONEER has a saw for every job!

Left to right: Compact, all-purpose Pioneer 450 for farm, suburb and sports. The Pioneer 550 is a semi-professional chain saw specially designed for farm and pulpwood use. Rated the best professional saw for pulpwood and general logging in its price and size class is the Pioneer 650. Pioneer's most powerful direct drive chain saw is the 750. And where real lugging power is a must, here's the Pioneer 850 in standard 2 to 1 gear ratio or 3 to 1 gear ratio! Pick your Pioneer!

NEW! PIONEER Sureguard™ chain cuts down kickback

It cuts just as fast as ordinary chain, but as links 1) go around nose of cutter bar, the center links 2) automatically rise to keep the cutters from digging in. And you can have it on your new 1965 Pioneer chain saw!



PIONEER CHAIN SAWS

Outboard Marine Corporation, Galesburg, Ill.

by the makers of Johnson and Evinrude Outboard Motors.

NOW!

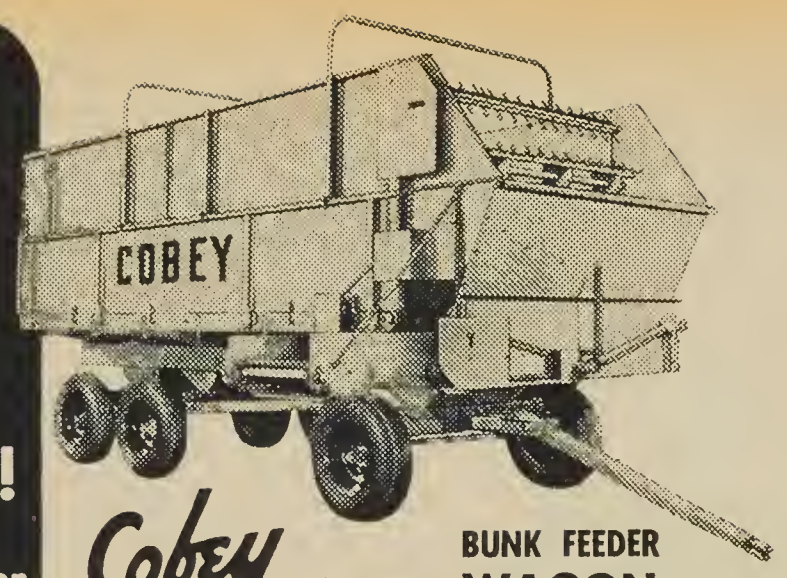
Improved for Even GREATER Performance!

• All Steel, Construction •

No Wood Used — No Bolt Heads Pulling Through •

Reverse for Instant Rear Unloading •

Choice of Tandem or Single Axle Gear



Cobey 51-BF BUNK FEEDER WAGON

Try and match this! Two men with two Cobey 51-BF's and a good blower have chopped, hauled and blown as much as 100 tons of silage in half a day. That's REAL and ACTUAL performance!

Furthermore, the Cobey 51-BF can haul and unload shelled or ear corn, chopped corn stalks, wheat, oats, grass forage - or you name it. The Cobey Bunk Feeder Wagon is always ready to out-perform all others! Write for full information.

THE COBEY CORPORATION, Galion, Ohio

MAIL THIS COUPON TODAY!

Gentlemen: Please send complete data on your 51-BF Bunk Feeder Wagon, and Folder on the Cobey Haulage Equipment.

Name Address

City Zone State

For the convenience of you and your dealer this equipment is warehoused at:

FOLK AND KELLY
PERRY CENTER
PERRY, NEW YORK

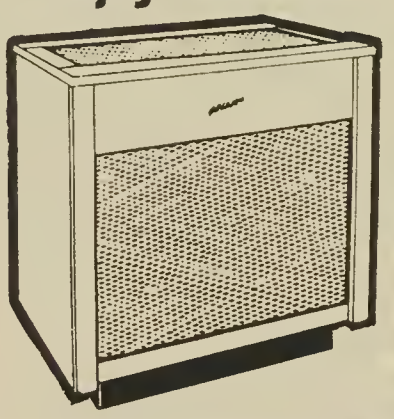
WHITE'S FARM SUPPLY
ONEIDA VALLEY
CANASTOTA, NEW YORK

INGERSOLL'S FARM SUPPLY, INC.
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THE OLIVER STORES
NEW GLOUCESTER, MAINE

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Enjoy luxurious warmth this winter—



AND CUT YOUR FUEL COSTS 80%

RITEWAY

WOOD AND COAL HEATERS

Complete Combustion burns fuel 3 times for maximum heating comfort, minimum cost. Riteway burns the fuel and converts it to charcoal or coke—then burns the heat-rich gases which go up the chimney in other heaters.

Less Work—You get in only half as much wood or coal. One fuel loading lasts 12 hours or more. Remove ashes only 2 or 3 times a month.

Fully Automatic — Set thermostat control and forget it. Maintains just the heat you want.

New Super-Comfort Blower—Forces draft-free warm air throughout your home at floor level for extra comfort. Thermostatically controlled. Optional on several of Riteway's 11 models.

Exclusive Electro-magnetic Creosote Inhibitor*—keeps pipe from clogging. **Patent Pending*

ASK ABOUT EASY TERMS

Manufactured over 25 years by makers of Pennsylvania Mowers

Selected dealerships available

UEBLER'S

529 Vernon, N. Y.



Susan Spotless says:

KEEP AMERICA BEAUTIFUL

APPROVED CLEAN

FROM MILKING MACHINE *THROUGH* BULK TANKS!!

Britex SANITATION PROGRAM

BRITEX CORP. *Manufacturing Chemists*
BOSTON, MASSACHUSETTS

BOSSY BREAKS THE BARRIERS

This year will be remembered for having New York DHIA herd averages break the 700 lb. fat barrier and the 20,000 lb. milk barrier. The dairymen are: Howard Colton, Dalton, Allegany County; Merton Plaisted, Hammondsport, Steuben County; Howard Saxton, Locke, Cayuga County; and Gerald Stoeckel, Bloomville, Delaware County.

The following table lists some of the more important items for these four herds:

	Colton	Plaisted	Saxton	Stoeckel
Cow years	33	21	44	37
Milk (lbs.)	20,247	18,393	19,296	19,650
Fat (lbs.)	740	740	713	722
Grain-peak amt. (lbs.)	30	25	45	28
Silage fed daily				
Corn (lbs.)	35	35	28	-
Grass (lbs.)	-	40	-	56
Hay fed daily (lbs.)	20	10	20	26
Times fed daily				
Grain	4	3	4	4
Silage	2	2	2	3
Hay	3	3	6	7
Hay on pasture	yes	yes	yes	yes
Breeding	AI	AI	AI	AI
Income over feed cost ($ per cow)	527	497	483	626

The following table gives the average feed use per milking cow in these herds:

	Colton	Plaisted	Saxton	Stoeckel
Grain fed (lbs./cow/yr.)	5800	5000	6800	5400
Silage fed (tons/cow/yr.)	3.6	10.8	3.5	4.6
Hay fed (tons/cow/yr.)	2.4	1.8	1.7	3.0

— Robert Cudworth

FRUIT STORAGE EXPERIENCE

Norman Applegate and his father, Leslie, operators of the Battleview Orchard at Freehold, New Jersey, built a new fruit storage in 1963 specifically designed for the Tectrol system. Measuring 60' x 48' x 19', it is designed to hold 18,000 bushels, and its refrigeration capacity is rated at 28 tons.

Company representatives helped design the structure and offered suggestions, but the Applegates modified standard plans somewhat. For instance, there is more headroom than is usual for a Tectrol storage. This allows refrigeration units to be hung from the ceiling, and also provides for the air circulation that the Applegates want.

Cooled Quickly

Good air circulation takes field heat out of newly-picked apples, all of which are handled in 18-bushel bulk bins (except for McIntosh and other soft varieties). Equipment can put 4 cubic feet of cooled air per bushel per minute into the storage for short periods; storage temperature can be held at around 32 degrees even if 3,000 bushels are added in one day.

In 1963, the storage was sealed on October 10, and by the 13th oxygen levels were down below 5 percent. Red Delicious were taken out during the storage season and the room resealed by caulking the plywood storage door.

The Applegates report a total cost of $1.75 per bushel to build the cement block storage, including the cost of refrigeration equipment. This was a contract job rather than being done by "home labor." They chose their system over regular CA storage primarily on the basis of difference in **initial** cost.

Inside the block walls and across the ceiling are mortared styrene insulating boards four inches thick. These are 4' x 4' x 8' panels that butt together in a special shiplap-caulked joint.

A high-density insulation board, also four inches thick, was put under the floor, which consists of six inches of reinforced concrete.

A 2½-ton lift truck with a three-stage mast handles bulk bins, allowing a much smaller door opening and aisles between bins than would be true if a regular farm tractor were used as a materials handling power unit.

CALIFORNIA MASTITIS TEST

IN DISCUSSING the California Mastitis Test, Douglas N. Stern, Extension Veterinarian at the University of Massachusetts, says that it was developed to fill the need for a rapid, economical, and sensitive barn test to indicate the degree of udder irritation.

However, Dr. Stern emphasizes that the Test cannot be used as the basis for treatment. A positive reaction merely indicates udder irritation, and there may be no organisms involved. On the other hand, a negative test doesn't indicate the absence of bacteria, since there may be a low-grade infection present. Bacterial infection can only be determined by a laboratory culture of suspected milk.



"All right, Ed, lead him in."

New York CHECKERBOARD NEWS©

...From the Purina Service Centers serving New York farmers



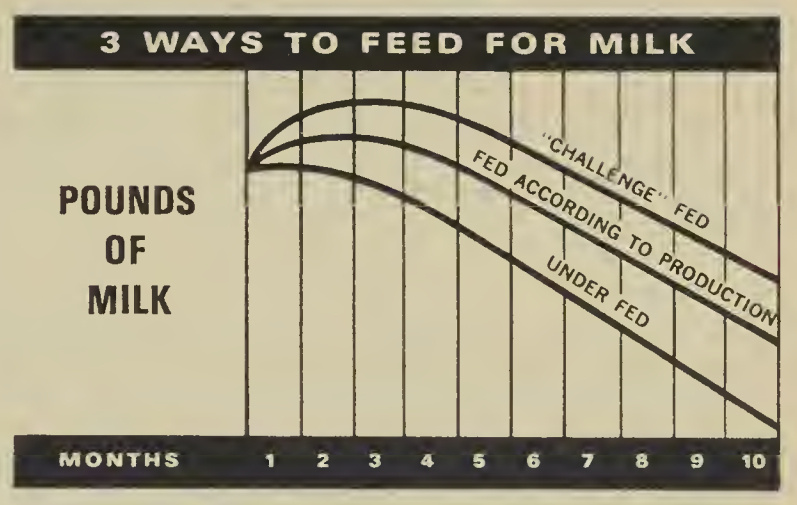
Dr. J. P. Everett is Purina's new Director of Dairy Research. He was raised on a Georgia dairy farm, studied and earned degrees at Auburn University, the University of Kentucky, and Michigan State University. In his work at the Purina Dairy Research Center, Dr. Everett is trying out many new feeding concepts, including challenge feeding.

New Purina Challenge Feeding Program helps cows produce to their capacity

"Challenge, or 'lead,' feeding can be one of the best ways to increase milk production per cow," according to Dr. J. P. Everett, director of Purina dairy research.

If you keep accurate records, practice good herd management, and milk cows capable of high production, you should consider Purina's new Challenge Feeding Program.

To challenge feed, just increase the amount of high efficiency milking ration according to the Purina Challenge Feeding Schedule as long as a cow gives more milk. When she levels off, continue to feed her at the highest grain level reached. If she starts to drop in production, reduce the amount of milking ration according to the Challenge Feeding Schedule.



Many dairymen who challenge feed are getting 1,000 to 2,000 lbs. more milk per cow . . . good reason to ask your nearest Purina Service Center for a copy of Purina's Challenge Feeding Schedule first chance you get.

Egg Production Cost Reduced 7/10¢ to 1¢ per dozen!

New and far more exact formulation of Purina Poultry Chows reduced egg production costs up to 1¢ per dozen as shown by 5 years of testing at the Purina Research Farm. These Least-Cost Performance Chows are available now at your Purina dealer. Ask him to give you more details about them.



One rat costs you $10 a year

It is estimated one rat eats or destroys $10 in feedstuffs each year. And if you see just one rat, you can figure there are a dozen or more in hiding. This means your rat bill could be staggering!

Purina Rat-Kill kills rats effectively, painlessly, quickly. When used as directed, is safe around family and animals. It has several advantages over other baits.

. . . Rats prefer Rat-Kill even when there's lots of grain or other feedstuffs around.

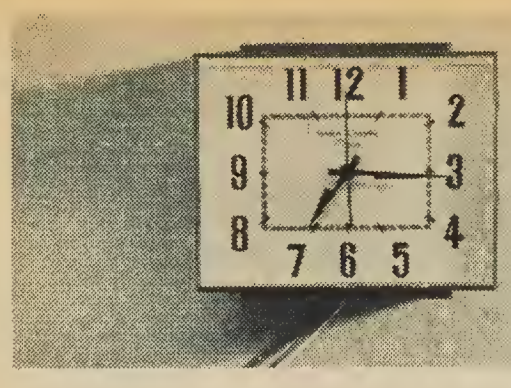
. . . Rat-Kill contains a special chemical that keeps it fresh and tasty long after many baits have lost their rat appeal.

. . . Rats will carry Rat-Kill to their nests for the whole family to eat and die.

Why depend on ordinary baits? Your Purina dealer has Rat-Kill in 1 and 5 pound bags. This month, stop by and see his Rat-Kill display.



LOW COST PRODUCTION...the reason why more farmers feed PURINA®



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.			
Olean	WHDL	1450 kc.			
Utica	WBVM	1550 kc.			

Northeast Radio Network

Ithaca, New York



MAJOR ISSUES

by Amos Kirby

New Jersey Editor

There are three major issues on the farm front in New Jersey as we approach the September deadline. They are:

1. The new personal property assessment law
2. Shrinking farm labor supply
3. Revision of the legislative representation in the New Jersey Assembly and the Senate

Assessments

The new personal property and inventory assessment law is now a reality. On September 1, every farmer and business establishment must file with their local tax assessor a signed statement on the property that they own for the operation of their farm or business.

Details — The writer has checked some of the details of this new law with representatives of the State Division of Taxation, the Farm Bureau, and others, on what it may mean to owners and operators of farms. We have been assured that as far as farmers are concerned, the measure will not be as severe as many have believed. This is not a new tax; it is merely a more realistic assessment on the property that is used on each farm. For example:

1. No growing crops are to be assessed.
2. Stored crops are taxed according to the period that they are held in storage. A crop held for a period of two months is to be based on market price at time of storage, and then figured on the basis of 2/12's of the annual rate. (Subject to revision).
3. Crops stored for feeding to livestock (grain, hay and silage) are not to be listed.
4. Registered motor vehicles are not to be listed. It is suggested that motor vehicles be licensed under the $3 registration. The $1 registration on certain motor vehicles should be stepped up to the higher fee classification.
5. Farm machinery and livestock must be assessed and taxed the same as business inventory, or one-fourth of the common level.
6. No machinery to be assessed at less than 20 percent of its original purchase value.

Farm Labor

There are few farmers in New Jersey who have any idea of what is taking place in the farm labor supply.

Bracceros — The rebound on the labor supply starts in California, extends across Arizona, New Mexico, and includes Texas. After January 1, 1965, a Federal law will prohibit the entry of Mexican workers, known as bracceros, to the United States. This shuts off about 264,000 workers who went to the Southwest each year.

Puerto Rico — California has already invaded Puerto Rico and states in the South. They are offering Puerto Rican workers $1.25 an hour — plus a bonus of about $130 per person if they will stay six months, and $230 if they agree to work for a full year.

Local Help — This supply is limited, and is being taxed almost to its limit even at the present time; efforts of the State Department of Labor to bring young people from Newark and other cities is not proving a huge success. Some have lasted a day, some have quit within a week, and others have been sent back due to health.

Legislative Representation

The reapportionment of county representation in the New Jersey Legislature carries a threat to every rural county in the State.

Shuffle — If the U. S. Supreme Court should decide that New Jersey must reapportion, here is the yardstick that may be mandatory:

There will be one member of the Assembly for each 100,000 of population, and one senator for each 300,000 population. This is estimated on the basis of 60 members in the Assembly and 21 in the Senate.

It will require little pencil work to determine how it will affect every county. For instance, Sussex, Warren, and part of Hunterdon might have one assemblyman; Cape May, Cumberland, Salem, and Gloucester would have one senator; while Bergen and Essex would have three and Hudson two, with Passaic and Camden having control of the Legislature.

Here and There

The eight-week drouth that hit New Jersey, from Burlington to Cape May counties, revealed the immense proportions of the underground water supply that exists in this 60-mile-square area. Never before have there been so many irrigation units in operation as this year, and never before have they drawn so heavily on the surface and underground water.

Purely Personal

Our "man of the year" is Harry B. Weiss, former director of the Division of Plant Industry, New Jersey State Department of Agriculture.

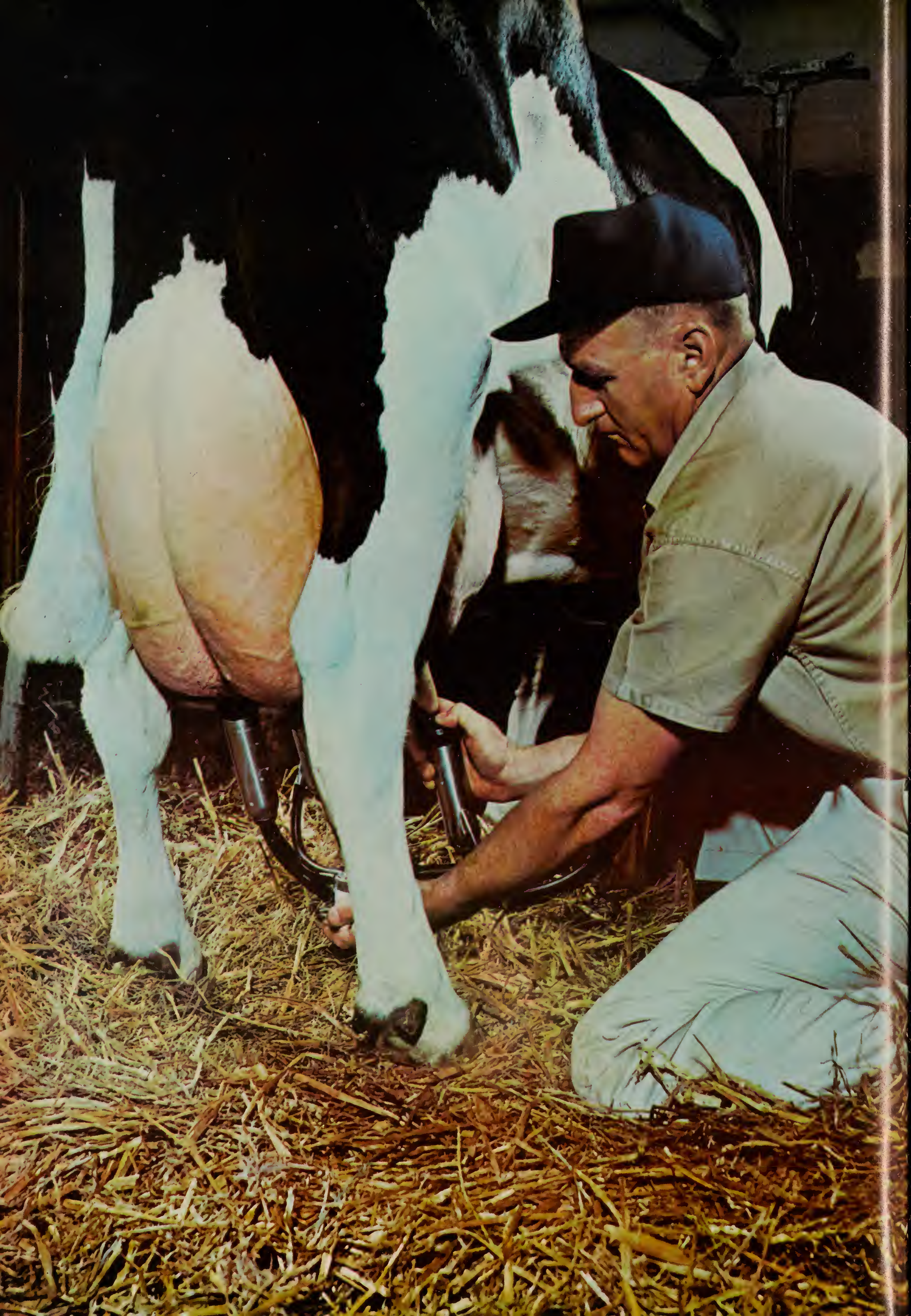
We have known Mr. Weiss since 1913, and it has always been a pleasure to work with him. Hugh Ferguson, farm director who followed me at WCAU Radio, has often referred to me as "the most un-retired retired person" he has known. In view of Mr. and Mrs. Weiss' record, I gladly hand them the Ferguson award!

Honored — At the annual Hunterdon County Farmer-Businessmen's picnic and outing held on the farm of David Perrine, Pittstown, Richard Anderson was presented with a plaque as the best wheat grower in New Jersey.

the new De Laval:



Now, milking 25% faster helps you solve common teat and udder problems (Read on)



Faster, more gentle De Laval milking can help you:

Avoid udder congestion and soreness
Improve resistance to infections
Protect teats from irritation and redness
Prevent injury to sensitive udder tissues
Get all the milk, without prolonged stripping

Here's how: milking your cows with the new De Laval helps solve common teat and udder health problems because you'll:

- reduce average milker-on time by 25% or more, depending on you and your cows
- milk more gently than with any other milker, even previous De Laval units
- get all the milk without having to strip so much you irritate udder tissues.

Fast, gentle, clean De Laval milking like this takes full advantage of each cow's peak letdown period. You're able to remove milk from the cow when her natural letdown hormone is most active. Result: healthier De Laval milking for your cows' sensitive teat and udder tissues.



Healthy De Laval milking reduces congestion

Healthy De Laval milking helps reduce udder congestion and soreness. Your cows' udders are softer, more pliable to the touch because you're not milking longer than the period of active letdown.

You also ship more of the milk your cows produce because healthy De Laval milking protects teats and udders from irritation and injury. It's harder for harmful organisms to get a foothold.

Isn't this better than slow, rough or incomplete milking which can result in sore udders and bruised, reddened teats? After all, you're in the milk business to make money, not to pour contaminated milk down the drain.

But don't get us wrong. You can't expect to milk fast, clean and gently with a new De Laval unless you're willing to practice good milking techniques. You can't expect a milker unit, *any* milker unit, to help solve herd health problems if you're the one who causes them.

Follow proper milking procedure, however, and like hundreds of dairymen across the country, you will reduce average milker-on time by 25% or more with the new De Laval.

Where'd we get the 25% figure in the first place? From the results of tests run over a two-year period on over 2700 cows—all breeds and ages—with a total of over two million milkings. These tests were run at leading agricultural colleges, the De Laval Dairy Research Farm and on working dairy farms across the country.

The new De Laval units were compared with other makes and with previous De Laval equipment. Milker-on time was reduced from 18% to 38%. The all-test average reduction in milker-on time was 25%. In effect, the difference between four-minute milking and three-minute milking.

Veterinarians checked the health of all cows in these tests. They were completely satisfied



Veterinarians checked teat and udder health

De Laval 25% faster milking helps solve teat and udder health problems.

For example, in California teat and udder health improved an average of 43.5%, as measured by the widely accepted California Mastitis Test.

If you want more proof, talk with any dairyman using the new De Laval milker. Ask him how much he's reduced milker-on time, how much his herd health has improved, how much more milk he's shipping. See what he says.

Then, to help you decide, your nearby De Laval dealer will be glad to give you a free trial to see how the new De Laval milks *your* cows. Today is a good day to call him.

DE LAVAL

Today, get a free De Laval new milker trial and complete milking system inspection:



Call your nearby De Laval dealer today for a free trial of new De Laval fast, clean and gentle milking. He'll also give your milking system a complete scientific inspection. Or write us: The De Laval Separator Company, Poughkeepsie, New York; Chicago 46, Illinois; or Burlingame, California.

DE LAVAL

FARM DOLLAR GUIDE

NEW RAIL RATES on corn now being used by 30 Eastern railroads make big change in the economics of feed business and use. Upper New England states are placed at considerable disadvantage compared to other states in the Northeast and Delmarva. Over-all rate cuts average 25%, range all the way from 10% to 50% reduction; new rates are based simply on mileage, and discard a formula in existence since 1871.

DAIRY PROFITS ARE CUT by over-feeding poor cows and under-feeding good cows. One way to locate good cows is to feed all they will eat in the first 30 days of lactation. A first calf heifer that hits a peak of 50-55 lbs. of milk per day will produce around 15,000 lbs. as a mature cow. A mature cow with a peak of 70 lbs. is "worth" 16,000; 80 lbs. a day, around 18,000 lbs.

OFFICIAL ESTIMATES OF MILK PRICES under Federal Order 2 in fall months are as follows: August, $4.25, up 5 cents from last year; September, $4.47, down 2 cents; October, $4.61, down 5 cents; November, $4.66, same as '63; December, $4.52, down 2 cents. Average for last 6 months of '64 $4.41, same as last year.

OFF-GRADE EGGS are bigger problem to individual poultrymen because of increasing size of poultry farms. Some poultrymen are freezing eggs on farm. Professor Bob Baker of Cornell advises following rules to maintain quality:

Wash those to be broken as carefully as those to be packed; keep hands and clothing clean; use clean containers, in sanitary surroundings; use only fresh eggs; don't break leakers - or keep them separate; don't beat eggs too fast or too long; freeze immediately after breaking, at -20°F if possible; leave eggs in freezer three months if possible; thaw eggs in a refrigerator.

SERIES OF ROOTSTOCKS known as Malling Merton (M.M.) are being tested. Some may have advantages over the popular E.M.VII now being used. E.M.VII rootstocks carry a latent virus, reports Professor Karl Brase of the New York Agricultural Experiment Station at Geneva; but he also says that its presence has not affected varieties grown on this rootstock.

MECHANIZATION THUMB RULE from Penn State says that a machine is a good investment if it costs not more than five times the cost of labor saved in a year. Example: if mechanization saves one hour per day at one dollar per hour, saving will be $365 - can afford to pay $1,825 for the equipment. This allows 10 percent for depreciation; 5 percent for interest on the equipment investment; and 5 percent of the purchase price for all other costs.

ALFALFA WEEVIL PROBLEM has tempted some farmers to consider moving back to grass in areas heavily infested. However, county agricultural agents in Lancaster County, Pennsylvania, and Orange County, New York, report continued emphasis on alfalfa because of high production potential. Heptachlor is out, but such materials as Guthion and Diazinon are being used to control weevils.

LIMITED FEEDING OF HOGS is creating quite a debate. Dr. C. E. Barnhart of the University of Kentucky claims that many people have misinterpreted the differences between lean carcasses caused by limited feeding and meaty carcasses genetically developed. He says muscling can be influenced to a small extent by feeding, but is influenced to a far greater degree by breeding.

BIG J POWER CHORING BARN CLEANING SYSTEMS

Chain Barn Cleaner...

- **Fast...23 feet per minute.** Moves liquids as well as solids. You get through cleaning quicker.
- **Rugged Galvanized Elevator.** Sheds weather, resists manure acids, lasts for years, and keeps its appearance.
- **Heavy, Reversible Link.** Forged with the metal "grain" formed around holes and stress points for greater strength and longer wear.
- **Fits all Barn Designs.**

Clean gutters . . . field spread . . . and return by the time you could clean with some other units. That's the kind of *time* you can save with a Big J chain cleaner on the job.

And you can depend on Jamesway! Their engineers have designed and installed thousands of cleaners. Experience that adds years of performance to Big J cleaners. For example, paddles are bolted (not welded) for simple replacement in case of damage or wear.

Chain is "loose" on return. Oil has a chance to soak link bolts for smooth action and longer life.

Cost? Less than you think. And Jamesway will finance, if you like But that's not all. Wiring, cement, labor, building supplies — all take money. To help cover these costs, Jamesway will lend you up to $2 for every $1 you invest in Jamesway equipment.

Now lease through us — 100% financing, pay-as-you-profit, tax benefits, and all risk insurance. Get plans and facts from your Jamesway specialist or write to the address below.



FIRST IN POWER CHORING

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James Manufacturing Company, Inc.

A SUBSIDIARY OF BUTLER MANUFACTURING COMPANY

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FREE FACT BOOKS WHILE THEY LAST AA-94

Name

Address

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☐ Dairy Facts ☐ Beef Facts ☐ Hog Facts

I milk cows; feed steers;

market hogs each year. ☐ Student

3284



SHUTTLE STROKE CLEANER

for large herds or for those who prefer the pull-and-push action that mixes liquids and solids, and moves material along rapidly. Get details from your Jamesway specialist or write.

DEALERSHIPS AVAILABLE IN SOME AREAS



SWEET DEBATE

Since you printed in your May issue of the American Agriculturist, on page 24, a criticism of our previous article in which Wesley R. Wells of Moravia "corrects" our statement on maple can calibration, we have been urged by your readers to reply to this criticism.

Those of us who know Mr. Wells realize that this is merely a play upon words and not a real criticism. However, many of my co-workers and maple industry leaders have worked with us long and hard to improve the calibration and proper size of cans. In fairness to these people it is necessary to state a few facts.

The criticism becomes meaningless when we realize that Mr. Well1s entire paragraph on proper size of cans is information Mr. Wells secured directly from us. Unfortunately, many of your readers do not know that Mr. Wells obtained this information from us and that he, in his many letters, quoted us an authority on the subject. This, then, is simply a matter taken out of context, since the article includes a statement concerning our search for heat exchangers so that syrup can be hot-packed without so much change in color and flavor during the heating process.

Cans such as he infers that I am advocating, i.e., cold pack cans, have not been on the market to any extent for many years.

We would like to have it known that Mr. Wells has been a great help to us in furthering our fight to have manufacturers adjust their can sizes. Compared to the old days when a producer had to add $25.00 worth of free syrup to every hundred gallons he filled, we are now approaching the point where producers can fill up the can without giving away any syrup.

Unfortunately, the USDA, in a handbook, advocated "weighing-in" the syrup, leaving a large pocket of air, so that you would not give away any syrup in the oversize cans. At present, everyone in the industry agrees that it is difficult to sterilize large pockets of air left in the can even though the syrup is 180 to 190 F. Nearly everyone agrees, now that we have stressed the matter for ten years, that the only way to pack syrup properly, without the use of additives of questionable value, is to pack the syrup hot and fill the can full.

As you see, it would have been worth while to have written an article twice as long if it were possible to have all of it printed. In the interest of the good reputation of maple sugar makers everywhere, we hope that you can pass this word along to your readers so that they will know that we really are together, that cans really are improved, and that it is a pleasure to receive such a high percentage of inspection reports which prove that the great majority of Vermont sugar makers are now properly packaging maple syrup so that it will keep safely until it is sold. — H. V. Shute, Dept. of Agriculture, Vermont.

PRAYER RULING

We want to be among those who stand up and be counted with you on declaring that the Supreme Court was wrong — dead wrong — in its ruling against prayer and Bible reading in our public schools. It is high time that this Court and our government officials know how the great mass of people feel about this matter!

The very foundation of truth that our government and our country is built upon is being jeopardized. I am sure the Communists are very pleased with the Court's decision because it is a big step in their direction, and we won't fear them from without because they will already be here within. It is the water inside a ship that sinks it — not what is on the outside.

It is unthinkable that we take away the teaching of the high and wonderful truths of honesty, integrity, faith in God, and the hope of heaven and teach them that they have the bodies, brains, and instincts of animals with no more meaning and purpose in life than to get all you can, can all you can, and then sit on the can!

From one who believes that more things are wrought by prayer than this world dreams of. — Helen C. Baker, Berkshire, N.Y.

A THOUSAND TIMES NO!

One sentence struck me in some recent comments by Harold Hawley, "Makes you wonder what you have to say to say 'No'."

A similar situation has grown up between the New York State Department of Education and the so far almost defenseless citizens of various school districts. We in the Gorham-Rushville area have said "No" four times to an enlarged school district.

MILKSAVER
STED-A-MILK
The best selling, most effective milk replacers in the northeast. Provide the ideal balance of nutrients at the lowest cost per calf. Milksaver and Sted-A-Milk are highly palatable, mix readily with water for easy feeding and remain in suspension throughout feeding period. Fortified with anti-biotics to help control scours, stimulate growth and provide an excellent and economical all 'round start.
The Big 3 from Agway
CALF GROWER*
The quality feed to bring heifers to breeding size faster and increase milk profits earlier. A coarse-textured, highly palatable, fully balanced ration. Certain to be the first choice of profit-minded dairymen. Special research-tested formulation provides outstanding scour control, stimulates growth — and profits!
*Grow-Ettes, complete pellets, also available
The Agway Profit Feeding Plan builds stronger, healthier calves, gets them to breeding size earlier, and saves you money at the same time.
These Agway feeds are products of one of the largest feed-research programs in the country. For greatest success and highest profits in your calf-raising program, put the Agway Profit Feeding Plan to work for you!
Order seasonal requirements early . . . Extra savings Sept. 8-19!
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Created by the united farmer-members of Eastern States Farmers' Exchange and Cooperative GLF Exchange

Our children are on half-day sessions at Gorham, and the State will not allow us to add on to our own buildings. Still the citizens have kept on saying "No," and "No," and "No" — you'd think someone would get the idea after a while!

Of course they already have, but it doesn't matter — we're to do what we're told. We're to form one mammoth school district according to a "Master Plan" in Albany, whether we like it or not, and we can vote until we're blue in the face — it doesn't count unless we vote the right way.

It is my contention that this kind of thing is bigger than just our school district. It's the point of view behind this action that's alarming, and if this point of view is accepted and allowed to permeate our entire government, then indeed our freedom is lost. Schools, wheat — they're but two facets of one problem, which boils down to the misuse, of power. — **Mrs. Richard Melious, Stanley, N. Y.**

ON POVERTY

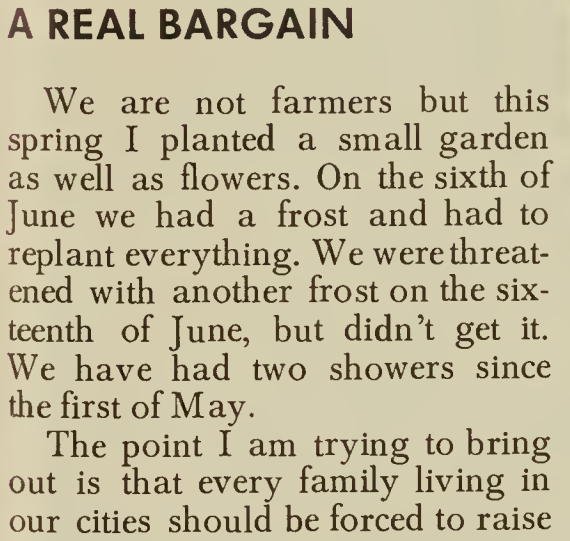
I remember years ago there was a WPA project where the government made jobs for the jobless. You either worked, if able, or you received no money for your wants. I feel there is too much money handed to what is called "poverty" and spent in taprooms; able-bodied men and women just waiting for the next check.

If part of the payment was made in food, soap, etc., the family could be fed and kept clean and the money not all spent in the wrong way. As long as the government is so anxious to give money away, it should be able to figure out jobs to be done for the money received. — **Mrs. Helen B. Cummins, Clayton, Delaware.**

A REAL BARGAIN

We are not farmers but this spring I planted a small garden as well as flowers. On the sixth of June we had a frost and had to replant everything. We were threatened with another frost on the sixteenth of June, but didn't get it. We have had two showers since the first of May.

The point I am trying to bring out is that every family living in our cities should be forced to raise their own food for one year. I'm sure they, like myself, would think that farm products are the lowest in price of anything they buy. — **Leon Dussault, Concord, New Hampshire**



"Who's in charge here?"

GOOD READING

We do not operate a farm, but ours is a farmhouse which we purchased some twenty-five years ago from a family who had occupied the place as a farm for three generations. The wall decorations in one recently redecorated room consist of forty pages from a few of the many issues of American Agriculturist left at our house by the former owners.

We receive the American Agriculturist, parts of which we read with considerable interest; the writings found in the issues of roughly a century ago are most fascinating. Not only do these issues have interesting pictorial subjects, but also sharpness of detail in this printing in the 1860's to 1880. — Leon M. Cole, Arlington, Vermont

PERSONAL RESPONSIBILITY

Some twenty years ago I asked for membership in a men's group and was accepted. I participated for a time but later didn't keep up my dues. I wanted to "belong," but finances said just let it go by.

A couple of years ago a friend — in a rather sarcastic way — asked just what I had ever gained from the group, and my reply was this: "Well, they never gave me very much, but I in turn never gave them anything, so I couldn't ask for much."

In our society of local communities we must all contribute and help guide, or the main objectives of life may be lost. — **Frank L. Morgan, Ellenton, Pennsylvania**

* * *

GRACIOUS ART

A melody is known
By the length and place
Of notes upon the scale. A chisel
Forms a thing of grace
From solid massive marble.
Likewise the disciplines
Of courtesy and custom
Shape and channelize
Man's words, his thoughts, his actions
And eruptions of the heart
Into forms of beauty
Which become a gracious art.

—Mary C. Ferris



Before you buy a new tractor TRY NUFFIELD!

Thousands of Quality British Made Diesel Tractors are Bought by United States Farmers Every Year.*

And now the highest quality of them all—Nuffield—built by famous British Motor Corporation—offers you 2 popular models . . . tops in 75 countries throughout the free world.

- 42 hp economical 3-cylinder diesel for light and medium farming.
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At the right price—competitive with comparable tractors sold in the United States.

Check these outstanding features . . .

1. *Built to ASAE Standards*

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Ask your Nuffield dealer now for a free demonstration. You will be amazed at Nuffield's low operating cost, high power and easy handling. Service? It's tops! For the rare times you'll need repairs, your dealer has complete stocks —backed by Frick Company's four centrally located parts depots.

Buying a new tractor? Try Nuffield . . . for the best buy you'll ever make. Just call your dealer or write to

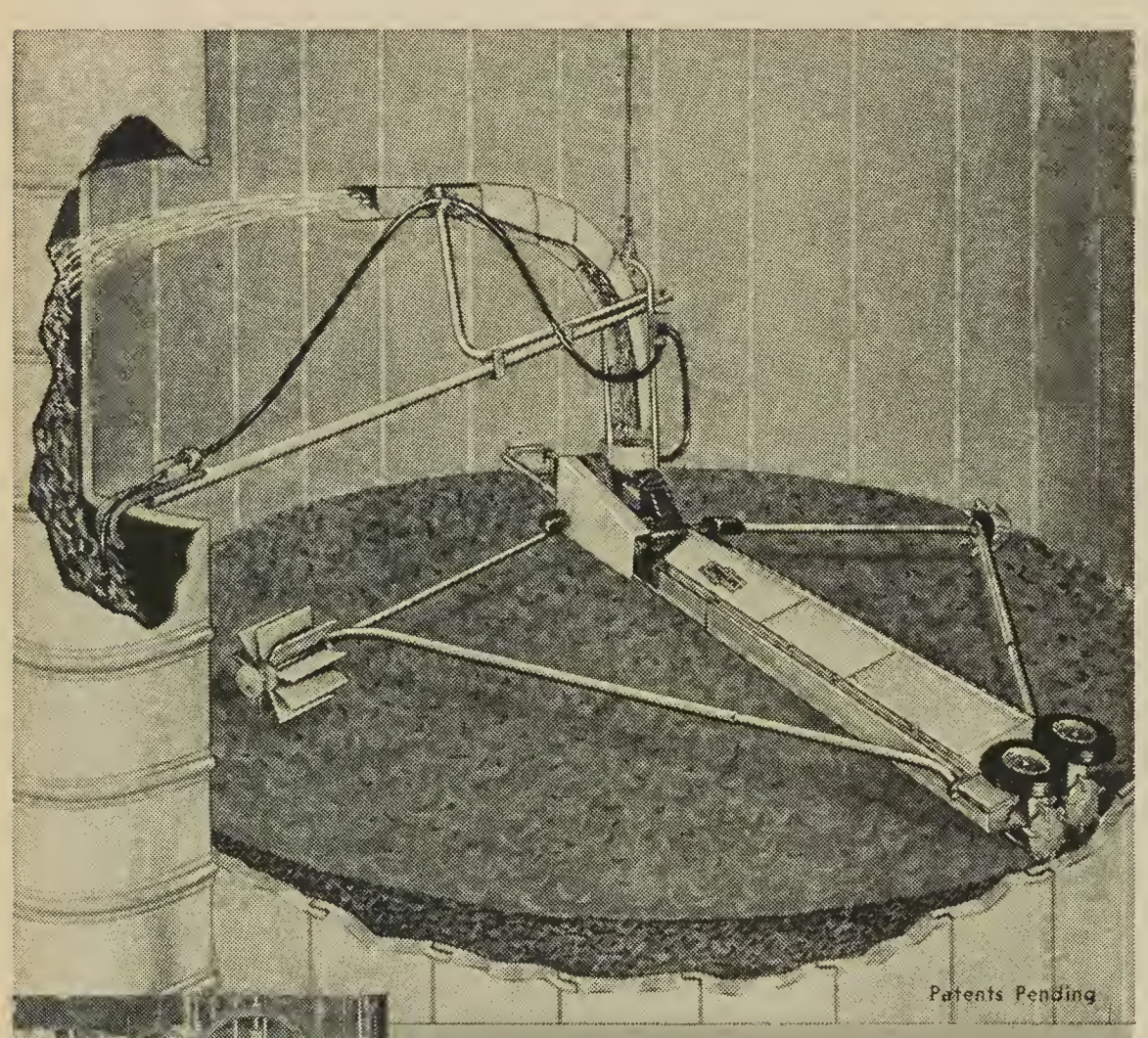
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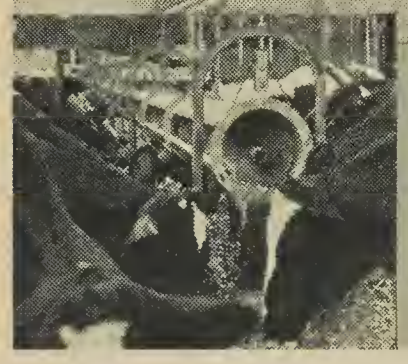
FRICK COMPANY
WAYNESBORO, PENNSYLVANIA
Farm and Forest Machinery

* British-made diesel tractors sold by United States tractor manufacturers such as . . . Ford Model 5000 Super Major; Ford Model 2000 Dexta; I.H. B414; Massey-Ferguson 35 and 65; Oliver Model 550; David Brown 950 and 990.

Get more "Throw-Power" from your horsepower!

Starline Silo Unloaders throw silage out of silos up through 24-feet in diameter without using auxiliary conveyors . . . no extra motors to power . . . no extra equipment to manhandle at door changes. You get other advantages, too: ★ **Obstructions can't stop it . . . Starline "Positraction drive" walks the collector arm around obstacles at the wall wheels while maintaining constant wall pressure.** ★ "Vibra-clean throat" prevents silage build-up above the clog-proof impeller. ★ "Flexi-curve discharge spout" assures fast, accurate delivery. ★ Dual wall cleaners "shave" silage from walls, even if frozen. ★ Dual augers thoroughly mix and fluff the ration. And, your local Starline Dealer gives you prompt, efficient service whenever you need it. See him today or send coupon for details.





STARLINE CHANNEL FEEDER completes your automatic cattle feeding system. This unique unit mixes fine grains and coarse silage thoroughly . . . feeds all animals simultaneously at bunks up to 150-feet long and matches separate rations to herds in multiple feed lots. Check coupon for free details.

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Eighty-Four—Fields Implement Store
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Greensburg—Byran Bowman
Greenville—D. R. Thompson Farm Supply
Lancaster—L. H. Brubaker
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MANAGE YOURSELF

Some poultrymen seem to have a lot of "luck." They have plenty of eggs when the price is high; their broilers are ready for market when prices are at the high point for the season; diseases, though sometimes present on their farms, seldom are a costly factor. Fellow poultrymen call them lucky; some even say they are good chicken men. Why do some farmers consistently meet with success?

The human factor in poultry farming is one of the important elements in success. Man's ego can be one of the stumbling blocks in human affairs, and it may also play the same role when one spends most of his time with poultry.

Man keeps poultry so that he may enjoy a good living, and the material comforts of life. In addition, personal satisfaction of a mental or spiritual nature are important factors. Apparently the human involved in keeping poultry has to overlook some of his own wants and desires and consider those of his flock as of prime importance.

Not Easy

Such a philosophy is not easily accepted by everyone; a person's wants are apt to be considered first. The so-called lucky poultrymen are those who have come to consider their flocks first in the total picture. They work for and with their poultry. They really know their flocks — their wants, their environment, their peculiarities. They have developed and fostered an art of anticipating and knowing the demands of their flocks. Such demands often require that self be forceably relegated to the background and the birds' requirements be considered first.

Stand back and look over your operations completely, and in an unbiased manner. This is humanly possible, but difficult. Do you meet your flock requirements? Do you know your birds and their day-by-day condition? They will perform for you if you are careful with the detailed husbandry they require.

It is not easy to criticize one's self, but perhaps if the birds could tell their side of the story under your care, and you met their requirements, you too might be a "luckier" poultryman. — **Robert Stockbridge, Ag. & Tech. Institute, Farmingdale, N. Y.**

MANURE HANDLING

In the July issue of American Agriculturist, the liquid manure handling system used on the dairy farm of Ralph Bowerman, Victor, New York, was mentioned. Here are some more details of how his system works.

Hay causes no problem in his arrangement because he has a chopper pump with knives on the pump impeller that cut up hay or other vegetable matter that may have fallen into the pit. His system is a commercial one developed in the State of Washington.

With a scraper-type scoop on the back of his tractor, he can clean out his new tie stall pole barn, his former stanchion barn where he now has two barn-length feeding bunks, the holding area, and milking parlor in half an hour. By welding sides on the scoop (his own design), the tractor can back up into tight spots and then draw manure to one of four floor-slots which feed into the pit.

The pit, which holds some 18,000 gallons of liquid manure, is 8 feet deep, 30 feet long, by 10 feet wide. An agitator in the pit keeps manure stirred up, and Bowerman believes in using lots of water so the manure never sets up. He feels he can go at least a week before needing to empty the pit, but prefers emptying at least twice a week the year around.

When he turns on the centrifugal chopper-pump, he can fill his 1,100 gallon spreader tank in five minutes. The tank, with a spinner on the rear, throws the liquid some 20 to 25 feet. It disperses the manure well so it can be used as a topdressing with no trouble.

Bowerman has had his system operating since last September, reports it has caused no trouble, and likes it fine because of its labor-saving features.

The Song of the Lazy Farmer

For me, this time of year's a pain, I've got to work with might and main for fear Mirandy might declare that I can't go to see the fair. She's got me cornered good, by jing, 'cause she knows I'll do anything to make sure I will get to go, I couldn't stand to miss the show. Of course, I boil to see the smirk she wears while checking on my work; and yet I do not mind the sweat that I am working up to get the best reward of all the year, I almost shiver at the fear that I might miss out on the fun there is when our fair has begun.

It's great to take an hour or so for looking at the livestock show and being glad that it ain't me who has to scrub those hogs, by gee, or get a steer curled up just right to hide his faults from judge's sight. I'll prob'ly condescend to take a minute's look at pies and cake so I can tell Mirandy that compared to hers the stuff looks flat. But I can hardly wait to go and sit up in the grandstand so I'll see the horses run and pace and will not miss an auto race; and peek at sideshows, natur'ly, that I was ordered not to see.



HE'S GETTING STARTED!

by Hugh Cosline

Whenever I hear someone bemoan the supposed fact that a young man with no capital just can't get started in farming at today's prices, I think of one of the many young men who **ARE** getting started.

For example, there's Clair DeMond of West Groton, in Tompkins County, New York. Seven years ago he bought a farm, but worked off the farm for four years to accumulate a little working capital. In the meantime he was raising some heifers, and three years ago began shipping milk and putting in full time on the farm.

It is essentially a one-man operation. The day I visited he was spreading 23 tons of lime, and on the previous day had applied 30 tons.

Moving Ahead

Clair is adding to his net worth every year. However, he is not content with the present setup; he has a very definite plan in mind.

Right now he is milking 24 cows and raising 7 heifers. To help keep down labor and equipment costs, he is following a plan of rotation grazing.

"Last year I built a pole-type barn and widened an old barn for more hay storage," says Clair. "I have two tractors, one twenty years old, and one eleven. Last winter I overhauled the old one and it runs fine. I learned how to do it in the shop when I studied vocational agriculture at Groton High School.

"Looking ahead, I want to increase milk production. Last year the herd averaged 11,500 pounds of milk, and will go over 12,000 this year.

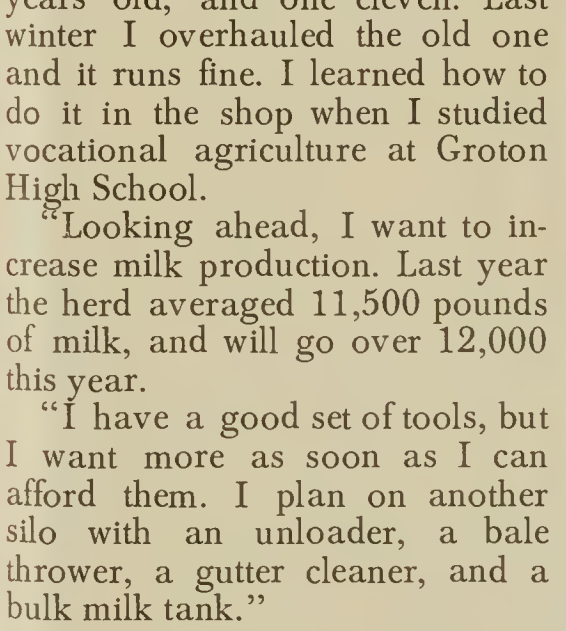
"I have a good set of tools, but I want more as soon as I can afford them. I plan on another silo with an unloader, a bale thrower, a gutter cleaner, and a bulk milk tank."

"Suppose someone offered to loan you money so you could add all this equipment now?" I asked. "Would you do it?"

"No," Clair replied. "I have a sizable equity in the farm now, and I want to keep it that way. Management is important these days, and if I expand too fast I might make some costly mistakes."

Many people would argue with Clair that you must have the latest equipment in order to cut production costs. Clair's position is that he can afford to work harder now than he intends to do when he gets older, and that he has a definite plan for making additions, some this year, some every year.

In the meantime, he's making substantial financial progress, more, in fact, than he could make by holding down a job for wages!



Clair DeMond drives a 20-year-old tractor that he overhauled last winter.

Dates to Remember

Sept. 1-7 - New York State Exposition, Syracuse, N.Y.

Sept. 1-7 - Agricultural Fair, Flemington, N.J.

Sept. 6 - Orange County Onion Harvest Festival, Pine Island, N.Y.

Sept. 12-14 - 41st Annual Yorktown Grange Fair, Grange Fairgrounds, Yorktown Heights, N.Y.

Sept. 14-15 - National Egg Recipe Cooking Contest, Chicago.

Sept. 14-17 - Pennsylvania All-American Dairy Show, State Farm Show Building, Harrisburg.

Sept. 19-27 - Eastern States Exposition, West Springfield, Mass.

Sept. 20 - Official AMARA Dairy Goat Show, Williams 4-H Fairgrounds, Westford, Mass.

Sept. 24 - Annual meeting, Vermont Feed Dealers & Manufacturers Association, University of Vermont, Burlington.

Sept. 26 - Official AMARA Dairy Goat Show, held in conjunction with Bolton Fair, Bolton, Mass.

Sept. 26-Oct. 3 - National 4-H Club Week.

Sept. 30 - Last date for filing Federal gas tax refund application covering 12-month period ending June 30, 1964.

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LOOK! ONLY $12
with purchase of
Remington Chain Saw
Compare at $32.00

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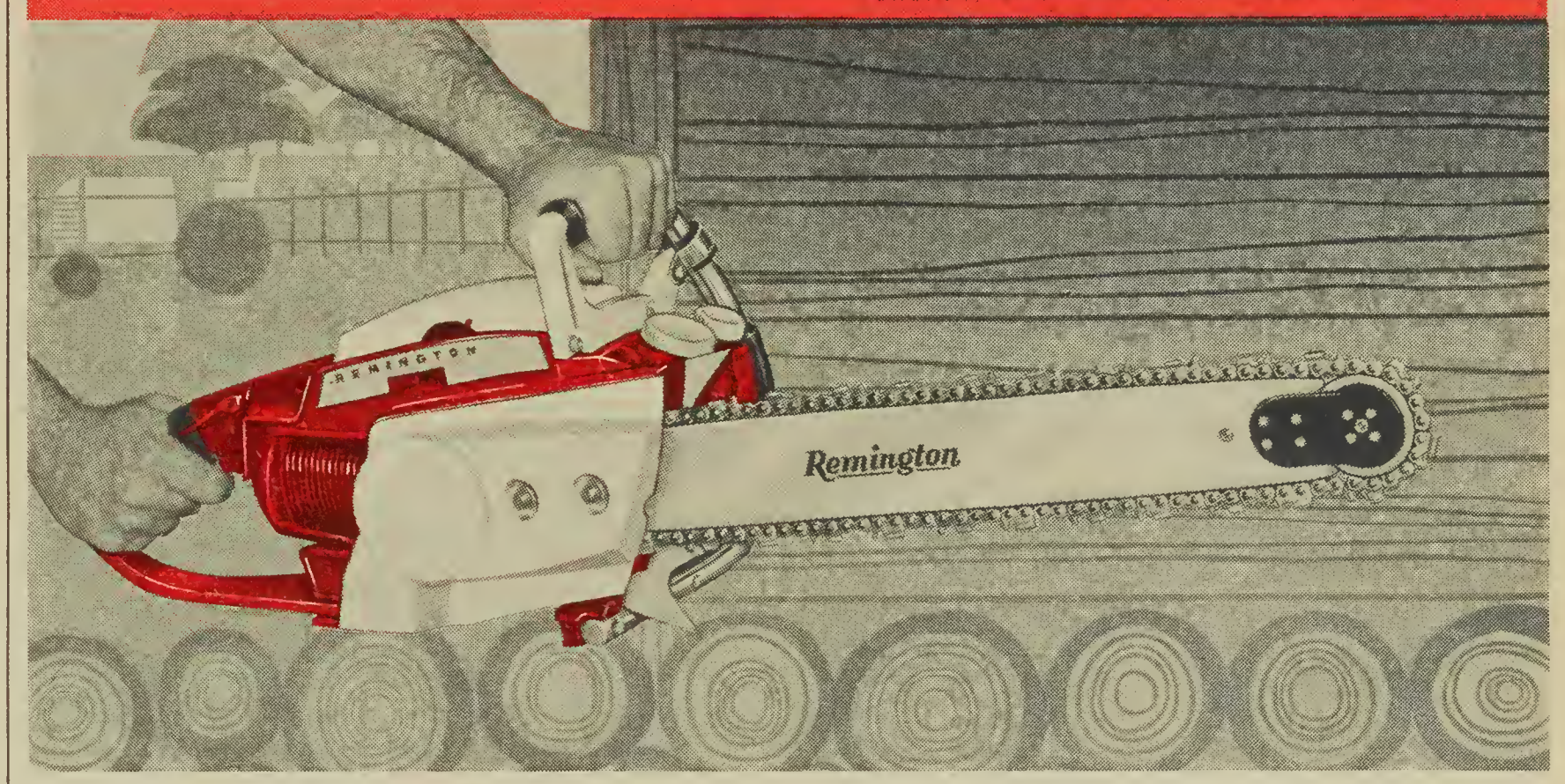
Garcia-Mitchell 304 spinning reel with 6½-foot matching spinning rod. Precision cross-wind gears, wide-range drag. Anti-reverse control. Full bail line pickup. Complete with "service guaranteed for life" policy. Rod is two-piece medium taper, medium light action. Hollow glass construction with cork handle.

SEE YOUR REMINGTON DEALER OR WRITE TO THE FOLLOWING DISTRIBUTORS:

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BRONSON & TOWNSEND, 2685 State St., Hamden, Conn.



BEARINGS...(not bushings)
...where bearings belong!

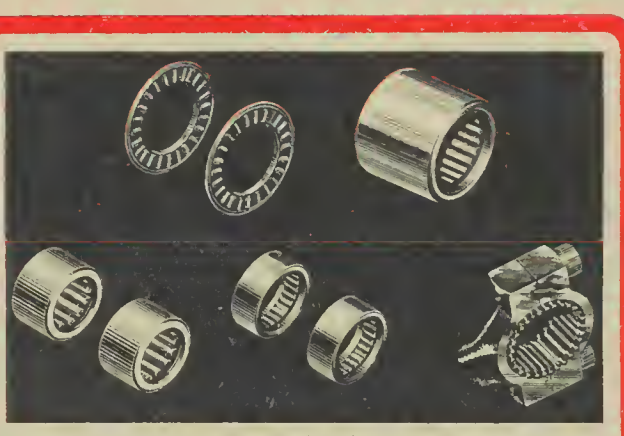
No matter what position a Remington chain saw is used in —upright, on its side, or upside down—the moving parts revolve smoothly on roller bearings—not on a plain bushing or the housing!

Roller thrust bearings, for example, keep the crankshaft free of friction while operating on its side. Many ordinary chain saws use only bushings! And all Remington chain saws also are equipped with roller wrist pin bearings to further reduce friction.

In Remington's patented roller-nose guide bar alone, there are 34 big roller bearings. This not only boosts cutting power up to 20%, but also reduces friction, thus increasing the life of the sprocket and guide bar. The roller nose, of course, is standard equipment at no extra cost.

Supported by roller bearings, the crankshaft is free floating, making it the toughest, longest-lasting crankshaft in any chain saw. If it fails because of defective materials or workmanship any time during the life of the saw, Remington will replace it at no cost!

Remember, almost any new chain saw will do a creditable job of cutting in a test lot. The differences don't show up until later. To save time and money, make sure you get the chain saw with bearings where bearings belong!



All bearings . . . not a bushing among 'em!

SPECIAL! New low price for Remington Saw Chain

See your Remington dealer now or write to:
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EVERYBODY SHARES IN DAIRY FARM INCOME





Last year the dairymen-owners of our 80 cooperatives grossed nearly $88 million from milk sales alone. That's a lot of money - in $1 bills laid end to end, over 6500 miles long.

Butcher, baker, machinery maker -- thousands benefited from money spent for our dairymen's production inputs, (see table), and living costs.

How a Typical Milkshed Dairyman Spends For Production

He Pays	$	%
Machinery Dealer	2,568	23.4
Feedman	2,362	21.5
Farm Workers	1,169	10.6
Building Supply Dealers	1,023	9.3
Livestock Sellers	699	6.4
Seed, Fertilizer, Lime Dealers	619	5.7
Garageman	473	4.4
Government	433	3.9
Utilities	217	2.0
Milk Hauler	197	1.8
Auto Dealer	175	1.6
Insurance Man	167	1.5
Veterinarian	153	1.4
Custom Operator	145	1.3
Cattle Breeder	103	.9
Miscellaneous	469	4.3
Totals	$10,972	100.0%

But it isn't enough. Dairymen do not get an adequate return for their labor and capital.

That's why a major goal of the Bargaining Agency's program of economic research ... information ... education ... service ... legislation ... and farmer representation at milk hearings ... is added returns to New York-New Jersey milkshed dairymen.

Since everybody benefits when dairymen benefit, we invite unaffiliated dairymen and others interested in a stronger economy to share our goal.

a Cooperative Association of Milk Producers

METROPOLITAN COOPERATIVE MILK PRODUCERS BARGAINING AGENCY, INC.

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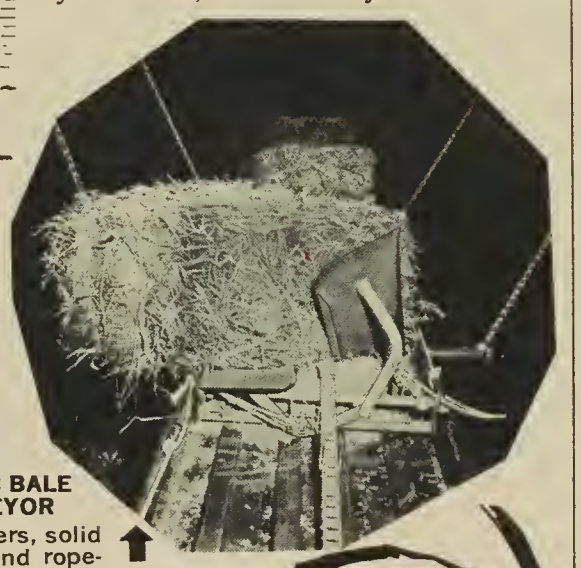


Farmec trouble-free conveying assures you of top profit from your equipment investment. Each piece (grain box, portable grain and hay elevator, bale conveyor and vertical bale elevator) has been engineered for an efficient conveying system for hauling, unloading and storing.

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FARMEC EAR CORN AND GRAIN BOX
Big capacity. Fast self-unloading. Better clean-out. Ideal as portable feed bin.

FARMEC PORTABLE "TOP 60" ELEVATOR
Economical top drive conveys 20 to 40 bales a minute (depending upon size) up a 60-degree incline. Also handles grain at high capacity.

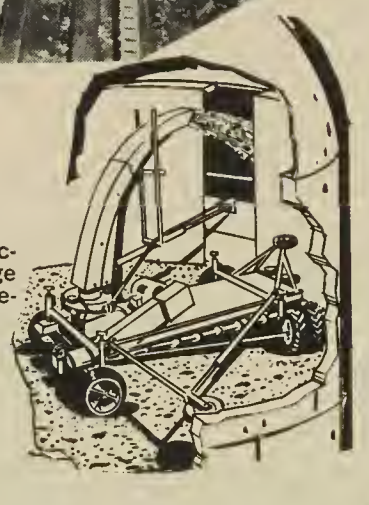




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Wide hangers, solid trough, and rope-controlled bale locator assure non-clogging delivery.

FARMEC 531 SILO UNLOADER
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Takes little space and handles bales of all sizes and densities.



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DIVISION OF NEW HOLLAND
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VISIT MEXICO WITH US!



There is an old Mexican proverb that runs something like this: "Once you have seen Mexico, you have no rest in any other land."

All who visit this country of strange and endless allure feel a desire to return to it, for perhaps more than any other place in the world, it steals your heart and captures your imagination.

We are happy to tell you that our first American Agriculturist tour for 1965 will be a trip to the romantic and historic land of Mexico. It has been planned in cooperation with the Travel Service Bureau of Needham, Mass., the folks who do such a wonderful job of directing all our tours.

Our Mexican Holiday will last three weeks, and the dates are January 10-30. We travel via St. Louis to San Antonio where we spend the night of January 12. Sightseeing in this fascinating city will include the Alamo, Fort Sam Houston, Brackenridge Park with its famed sunken gardens, and other points of interest.

Leaving San Antonio and enroute to Mexico City, we roll along in our Pullmans, making stops at Mexican towns and gaining a real closeup view of rural Mexico. This is considered one of the most interesting railroad journeys in North America.

Following are some highlights of the time we will spend in Mexico:

January 14-17 — We'll stay four nights in beautiful Mexico City. Fascinating sightseeing drives will take us to the Castle of Chapultepec; the colorful flower market of Dolores; magnificent University City, and the gay floating gardens of Xochimilco where we'll enjoy a gondola ride along flower-lined canals. We will even have a chance to visit the largest bull ring in the world, with a trained guide to explain the action.

January 18-19 — Leaving Mexico City, we'll motor southeast through miles of breathtaking scenery, see snow-crowned "Popo" and "Sleeping Lady," pass through interesting Indian villages, and at Cholula see the church built on top of a pyramid.

En route to Fortin, we'll visit the famous Spanish city of Puebla, with its magnificent cathedral, Rosary Chapel with gold ceiling, the Hidden Convent of Santa Monica, pottery factory and onyx shops. Arriving at Fortin, we'll stay at the lovely Hotel Ruiz Galindo, set in a scene of tropical luxury ... lush green vegetation, gaily colored flowers, and air perfumed with hibiscus, gardenias, and orange blossoms. While here, we will visit a coffee plantation near Cordoba and take a beautiful drive past Mount Orizaba (18,200 feet of mountain splendor).

January 20 — Today we will be in Cuernavaca, City of Eternal Spring, where in the sixteenth century the Spanish general Cortez built a great palace which is preserved to this day.

January 21-22 — From wonderful Cuernavaca, we drive westward to the fabulous town of Taxco, which has been called a "real treasure chest of Colonial Mexico." The original city goes back to the 14th century, and today's town is one of the quaintest in the world.

Situated on a mountainside, with tiers of red-roofed houses, porches, and gardens; narrow crooked streets with no sidewalks; beautifully decorated churches and fascinating shops, Taxco is a place you'll long remember! You'll love the shops with their Mexican silver jewelry, handwoven serapes, tinware, baskets, sandals, leather goods, and original ceramics.

January 23-24 — Today we drive down to the Pacific Ocean at Acapulco, the glamorous Mexican resort that draws people from all over the world. You'll find all sorts of activity here, from fishing to golf and swimming; or you can just lounge and enjoy sun bathing and watch native boys dive from lofty cliffs, risking their necks for coins tossed into the sea.

January 25-26 — Back in Mexico City by way of Teguesquitengo and Vista Hermosa with a full day at leisure for last-minute shopping and final postcards home.

This is just a brief outline of what we will see and do. Full details and cost of the trip are given in our free printed itinerary, which you can get by sending us the coupon below. Like all American Agriculturist tours, this is an escorted tour, and the "all-expense ticket" includes everything.

We hope you'll decide to take this carefree, fascinating trip with us. You'll enjoy everything about it — magnificent scenery, delicious meals, courteous service, first class accommodations, thrilling sightseeing, and warm sunny days "South of the Border."

Hawaiian Tours

There is still some space available on both of our Hawaiian Holidays — Sept. 1 - Oct. 1 for the steamship tour and Oct. 10-25 for the air tour. Write today for the illustrated folders if you are interested in going to Hawaii this fall.

Gordon Conklin, Editor
American Agriculturist
Box 367-T
Ithaca, New York

(Please print)

Please send me without obligation on my part, the following tour itineraries:

Mexican Holiday ____ Hawaiian Tours ____

Name _____

Address _____



The male side of the Tallman team (left to right) are: Joe, Nick, Michael, and Junior. The picture was taken June 24.

HIP HIGH BY 4TH OF JULY

THE TALLMAN BROTHERS (Junior and Nick) of Nunda, New York, began planting corn this year on April 24; by July 4 one field was hip high. And well they might start early, for they had 200 acres to plant — some for silage and the remainder to be picked as grain.

Silage makes up a large percentage of roughage fed to the 60 milkers on this farm; a 20′ x 60′ tub was added in 1963 to the three 12′ x 35′ silos already available elsewhere on the entire farm operation. Silage from the smaller silo is unloaded into a self-unloading wagon and then blown into the big silo; all silage feeding is done from an auger-equipped bunk supplied by the 20 x 60′ structure. "Transfer it when the weather is cool," says Nick, "otherwise you'll get too much spoilage."

Speaking of spoilage, both Tallmans recommend thinking of this when planning large-diameter silos for summer feeding, because enough has to be taken off every day so spoilage can't begin. Two to three inches a day were being taken off when I visited.

The Tallmans are already wishing their new silo had been a 24 footer; they're looking ahead to building one that size before long. It was in 1963 that they made the plunge to heavy corn silage feeding. "We figured we could sacrifice some milk production in order to get better farmstead mechanization," Junior says. "But it ended up that milk production actually increased!"

Limited Hay

The Tallman herd gets hay in a limited amount; Junior estimates between five and six pounds per cow per day. "We were afraid one time that silage would spoil unless we used it faster, so we switched the herd to all corn silage," he says. "We didn't have any problem with going off feed, though; in fact, I think they came up on milk."

There were 60 acres cut for hay on this farm this year; the first cutting was all harvested by June 15. No small grains were grown in 1964, although oats are used some years as a nurse crop to establish new seedings.

A very high percentage of the total TDN intake of the dairy herd comes from corn. In addition to corn silage, the grain ration contains 4 tons of home-grown shelled corn, a ton of bran, a ton of 32 percent protein supplement, 400 pounds of soybean meal, plus molasses and minerals. Total digestible protein of the mix is around 13 to 14 percent.

Many Varieties

Varieties of corn grown are numerous, including such ones as Robeson 690, 350, 318, 315; DeKalb's 224; and Funk's 11A and 17A. Standard fertilization includes plowing down 100 pounds per acre of urea on corn stalks, plus 450 pounds per acre of 12-12-12 at planting. Manure is used heavily on some fields, particularly those close to the barn. Atrazine was used (complete coverage) on 140 acres of corn on this farm in 1964; nutgrass is the biggest weed problem.

The Tallmans try to get 20,000 plants per acre (38′ rows with their new planter) on picking corn; 24,000 per acre for silage. Tillage is minimum — a clodbuster behind the plow in some cases, dragging once on other fields.

In 1963, corn silage began rattling up the blower pipes on September 1 — at the full dent stage. "We like to hear it rattle going up the pipe so we know its mature enough," Nick says. With self-unloading wagons, a PTO blower, a 9-inch blower pipe, and lots of wallop at the tractor, a five-ton load of silage can be unloaded in five minutes.

The Tallmans have used haylage, liked it as a feed, but found their unloader didn't work well in a 20-foot diameter silo, and harvesting seemed slower than they liked. In their opinion, corn handles easier than either hay or haylage, and the TDN possibilities per acre are higher. In addition, they like the consistent quality of corn silage, and comment that they never had a real crop failure with corn. They recognize, of course, that the soils, climate, topography, elevation and size of any farm influences decisions concerning what is best as a source of roughage supply.

In August, 1963, the Tallmans opened the Golden Acres Dairy Store on Route 408 about a half mile north of Nunda. They retail part of their milk production, along with a multitude of other dairy and grocery items, through this store. The rest of the family, especially the wives of Nick and Junior, take major responsibility for this part of the total operation. If you're up that way, stop in for a glass of milk or a cup of coffee — the latter with cream, of course!

COW SOCIOLOGY

A herd of cows is a highly-organized social unit. Every cow has her place, and there's always one cow that bows to none, the boss of the herd. She has free and uncontested access to the best feeding spots, the best shade, and choicest spot in the milking line-up — or any other privilege she may choose to establish as her own.

It isn't a matter of ability to make milk — rather it's ability to push and shove. Rank is established soon after a cow joins a herd, and once set it isn't likely to be challenged until another newcomer tries to find her place in the social order.

H. J. Larsen, dairy scientist at the University of Wisconsin, has been studying the social behavior of cows, and finds it remarkably orderly. There's even, says Mr. Larsen, a "public servant" in most herds. Any cow, regardless of her place in the social order, can come to this cow for a "refreshing" face washing. In answer to a gentle, pleading nudge, the servant will turn and lick the head, face or neck of her herd mate.

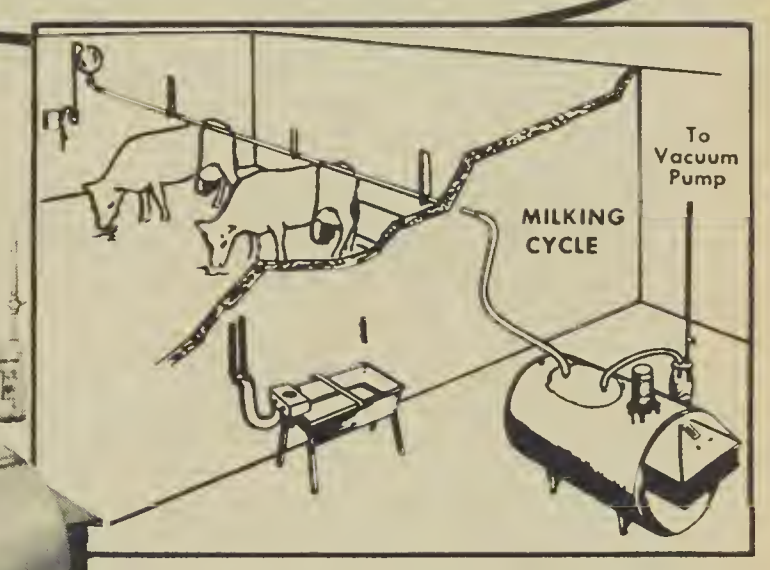
Another thing that Mr. Larsen has noted is that grazing cows have a rest period after about an hour and a half of feeding. Often they will bunch together, combining their fly swatting strength, for about 10 to 15 minutes while their food settles a bit.

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12

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SEE US AT THE FAIR!



Jay Manchester, Waterville (left) passes the gavel to Leonard Grubel, Saquoit, new president of the Association of Teachers of Agriculture of New York. Other officers, left to right: Lyle Barnes, Dundee, vice president; Ward Ellsworth, Brookfield, secretary-treasurer; Howard Teal, Boonville, office of supplies.

Vacationland — Did you know that southwestern New York is developing into a sizable recreation center? For instance, there are 5 businesses featuring ski areas around Ellicottville (Cattaraugus County) alone. The Holiday Valley organization claims it entertained 100,000 skiers during the '63-'64 season.

Hot Stuff — Nuclear Fuel Services, Inc., will soon be operating the only privately-owned nuclear fuel "cleaning" plant in the country, at Ashford (Cattaraugus County), New York. The facility, now under construction, will remove from nuclear fuels the contaminating by-products created by the process of fission. The rods and bars used as nuclear fuel will be sent here to be processed, and then returned to duty. Utility companies will be one of the big customers.

Missing Leaves — In southwestern New York this summer there have appeared considerable areas of defoliation in wooded areas. It seems that three insects — the striped maple worm, the linden looper, and the canker worm have all ganged up with high populations in one year to strip leaves right down to the midriff. Forestry entomologists are watching closely this fall so they can predict whether these insects will be numerous again next year. Two years of defoliation in a row can kill trees; but one time around isn't likely to damage them very severely.

Exploring — Thirty scientists from The Pennsylvania State University and Cornell University have been exploring the possibilities of combining research resources. For example, Cornell could do the research work for both states on mechanical harvesting of grapes and cherries, while Pennsylvania would take over on mechanical harvesting of tomatoes.

Superior Service

Back in October, 1960, the duck farmers of Long Island found themselves in difficulty, with heavy inventories and low prices. The Farm Products Promotion Section of the New York Department of Agriculture and Markets, headed by Spencer G. Duncan, developed a program — working with the Long Island Duck Farmers Cooperative — which helped move more than four million pounds of duckling within the next two months. The work was financed partially by the State of New York, and partially through the USDA through its Matching Fund Program.

From a "problem" industry the Long Island duck farming was transformed into one of the State's more vigorous agricultural enterprises. It was a good example of government and industry working together to reach a common goal.

Mr. Duncan and his staff have been recognized for their achievement by the "Superior Service Unit Award" of the U.S. Department of Agriculture. This is the first time this award has been given outside of the USDA itself.

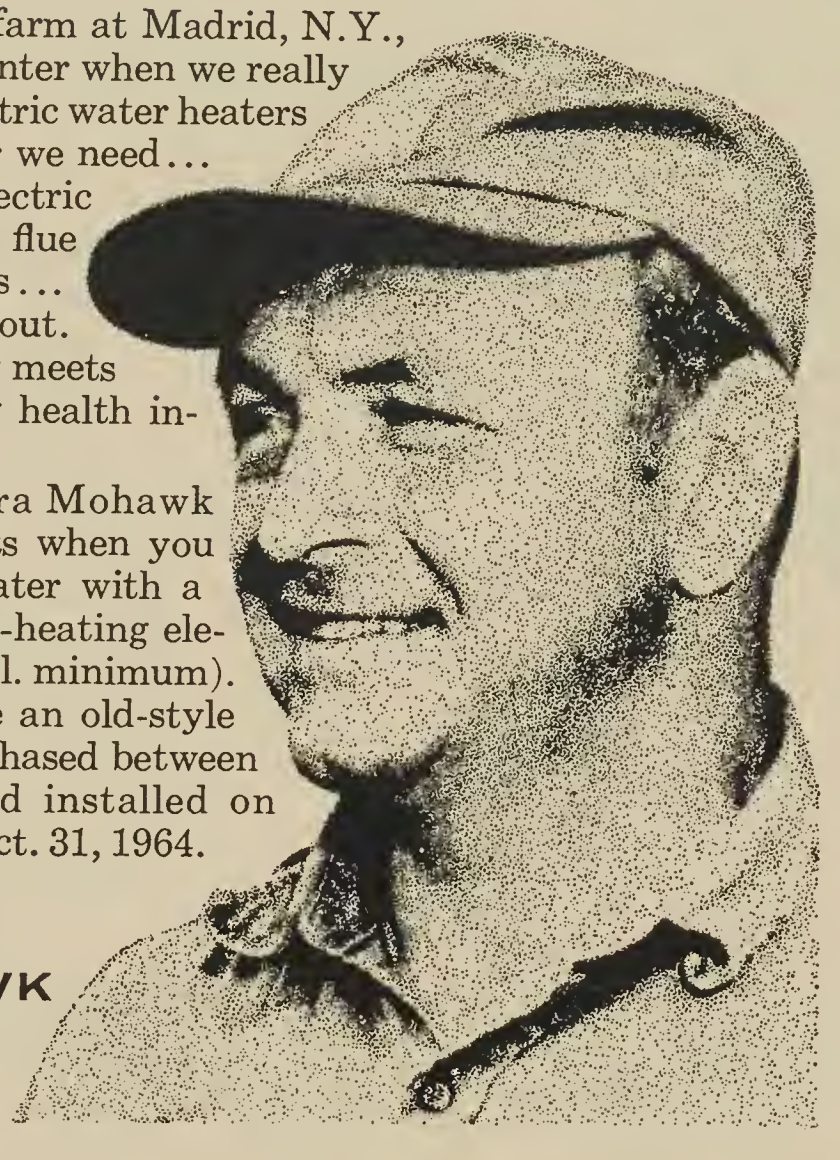
Quick Relay — In Jefferson County the Agriculture and 4-H departments have installed automobile 2-way radios capable of receiving and transmitting throughout the county. This will allow the agents to spend a greater part of their time in the field while still in contact with the office.

Young Organization — Owners of forest land have an organization to protect their interests in the New York Forest Owners Association. President is Theodore T. Buckley, Cambridge, New York; secretary, Floyd E. Carlson, College of Forestry, Syracuse, New York; and the treasurer is Mrs. Barbara S. Pittenger, Marcellus, New York. Membership is open to any interested person; annual dues are $3.00 per member — or $1.00 for those under 21 years of age (non-voting membership).

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Lloyd Flack, owner of 433-acre farm at Madrid, N.Y., reports: "Even in the dead of winter when we really gobble up hot water, our two electric water heaters give us all the instant hot water we need... for remarkably low cost. Our electric water heaters need no chimney, flue or fuel tanks... make no fumes... have no pilot light to worry about. Electric heater in the barn easily meets requirements of milk-marketing health inspectors."

BUY NOW—SAVE $50. Niagara Mohawk will pay $50 of installation costs when you replace a non-electric water heater with a new 4500-watt, upper- and lower-heating element electric water heater (40-gal. minimum). We'll pay $15 when you replace an old-style electric heater. Offer good if purchased between Aug. 15 and Sept. 30, 1964, and installed on Niagara Mohawk lines before Oct. 31, 1964.



NIAGARA MOHAWK

INVESTOR OWNED-TAXPAYING



Leon Button is proud of Vine Valley Design's Pauline, a Grand Champion at Syracuse in 1961 and the Reserve Grand in 1962-63.

REPORT FROM VINE VALLEY

by Don Watson

THE FARM is old, but the methods are up to date; that's the story of Vine Valley Stock Farm, Middlesex, New York (Yates County).

Young and progressive Leon Button, Jr., is following his father, grandfather and great-grandfather in the operation of this family farm. Of the 410 acres on the farm, Button works 300. He presently has 100 acres of alfalfa and alfalfa-clover combination, 80 acres in corn, 20 in oats, 30 acres in wheat, and 10 in a sudan-sorghum mixture which is used for greenchop. The remaining 70 acres are used for pasture.

Vine Valley Farm had a Holstein herd and a flock of sheep when Leon took over from his father some years ago. The sheep enterprise has been discontinued, but the cattle operation has been expanded to the point where they now have both Holstein and Brown Swiss. As Button explains it, "My father always liked the Black and Whites and I like the Swiss. The best producers of both breeds stay in the herd. We have no room in the barn for animals that don't make us money."

The Button herd consists of 95 head, with 21 Holsteins and 35 Swiss milking at this time. The Holsteins are bred to bulls from the New York Artificial Breeding Cooperative in Ithaca. Some of the Swiss are also bred to NYABC bulls; however, Button purchased Norvic Lilason Chip as a calf from Norman Magnuson in Wisconsin for use as a Swiss herd sire.

Good Investment

That this was a good investment has already been established, since he sired the 1963 Eastern States Exposition Junior Champion heifer calf. This calf also took first at the New York State Exposition in Syracuse and placed fifth in class at the National Dairy Cattle Congress in Waterloo (Iowa)—and was the Brown Swiss Cattle Breeders Association Reserve Bell Ringer for 1963. A February bull calf, Vine Valley Prancer's Leader, has been contracted for by NYABC. This calf is out of Button's Lisa cow, with a record of 18,710 of milk and 762 of fat.

From a production standpoint, the Vine Valley herd is a good one. The latest figures on the DHIA rolling average show that the Holsteins are producing 15,143 of milk and 547 of fat, while the Swiss have a 543 fat average and 13,130 of milk. Button has no immediate plans for increasing the size of the milking herd, since he feels that they have as many in production as they can comfortably care for.

Fly Control

An important part of the Button barn and herd management program is the control of flies. Some years ago, he began spraying to control flies in the barn, but found this was an expensive operation and one which had to be repeated several times during the season. Button discovered Snip Fly Bands (insecticide-impregnated plastic fabric strips) when Cornell University was testing the product four years ago. Joe Donahue, Yates County assistant agricultural agent, brought some of the bands to the farm for testing. Button has used them since that time with excellent results.

The barn has 18 comfort stalls, 22 tie stalls, and the rest of the animals are held in stanchions. Button feels that the comfort stalls are best both for the animals and the ease of care. He uses rubber mats and has had no mastitis problem to speak of. Some of his cows developed foot cracks, but this problem is being taken care of through the use of a box of lime and copper sulfate through which the cows must pass when returning from the feed lot to the barn.

Less Pasturing

Button is changing from the grazing system which has always been used on the farm to a greenchop or zero grazing system. He chops an average of two wagon loads of feed each night during the growing season, and brings it to the animals in the loafing area. During the late spring and summer months, he figures that each animal gets about 40 to 50 pounds of chop at night. He pro-

(Continued on page 34)

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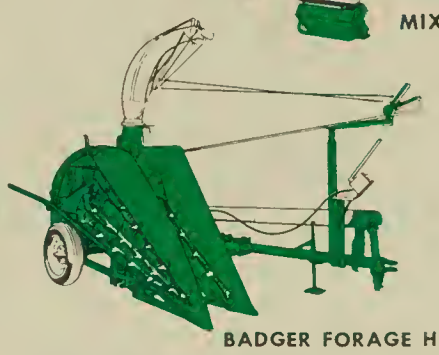
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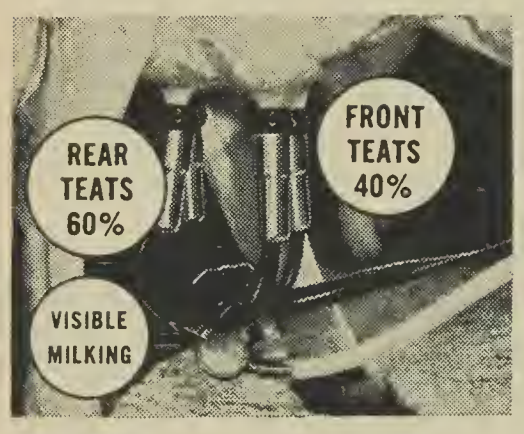
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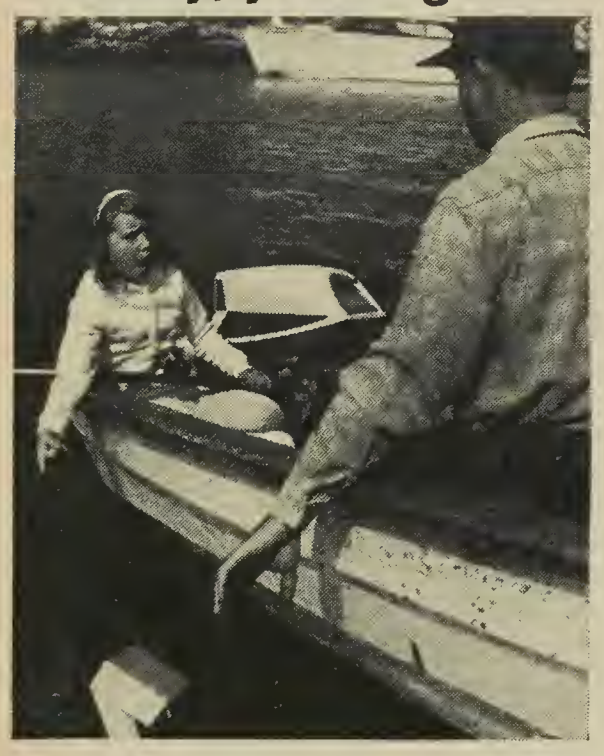
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"Daddy, you forgot . . .



every litter bit hurts."



Report from vine valley . . .

(Continued from page 33)

vides hay and corn silage — 40 to 50 pounds of silage and as much hay as they will eat during the day. A 20' x 50' upright silo, plus a new unloader and auger, bring the silage directly to the feed lot, where it is available all day. He grains on a winter schedule and wishes the animals would take more.

Button feels that this system of summer feeding provides his milking herd with a consistent quality of feed which pays off at the pail. In addition to this important economic fact, he has had no bloat problems since making the switch. Having previously lost several good cows from bloat, he is highly pleased by the fact that the present system has eliminated this problem.

Button lead feeds his animals as far as grain is concerned. He has been grinding his own grain since 1937, and feeds a combination of ear corn, oats and supplement. The animals receive individual portions of this combination, depending upon how they are milking and their stage of lactation. The supplement is purchased by the carload in cooperation with neighbors in order to obtain the carlot rate. Most of the animals in milk receive one pound ground feed for each two and one-half to three pounds of milk.

During the winter, the Button milking herd consumes about 1,200 pounds of hay daily. Each cow is also given 25 pounds of top quality silage.

On corn land, Button uses about ten tons of manure per acre, and adds 500 pounds of 10-10-10 in the spring. For quackgrass control, he goes in with split applications of Atrazine on his muck soil at the rate of two and a half pounds broadcast about the first of May, and an additional two and a half pounds after plowing and planting. Where the weeds and quack are not a difficult problem, he uses a single application.

The Vine Valley operation exemplifies the typical northeastern family farm. In a process of constant adaption, good management has profitably combined existing facilities with new techniques to meet present day conditions.

PLYWOOD PUBLICATION

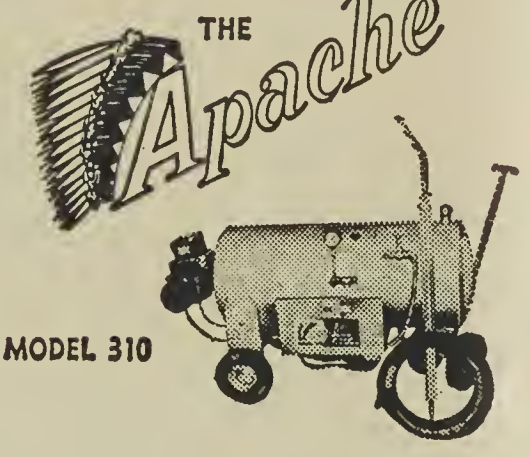
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Included is information on the advantages of pallet bin handling, and complete design information for several types of bins, together with a listing of plywood specifications for construction.

Copies of the new booklet are available for 25 cents to cover handling and postage. Write to Douglas Fir Plywood Association, Tacoma, Washington 98401, and ask for booklet 63-510.

He: Since I met you, I can't eat, I can't sleep, I can't drink.
She (coyly) Why not?
He: I'm broke!

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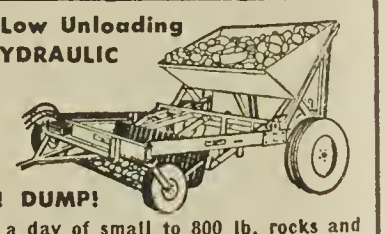
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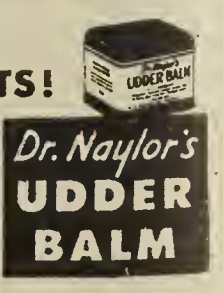
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Grandmas pay the bills . . .

(Continued from page 14)

because the cement in the new dairy barn was not yet dry. After a two-day rain every cow came down with serious mastitis.

Other Aids

Nationally, cows now leave our dairy herds at an average of six to six-and-a-half years of age, after staying in the herd for four to four-and-a-half productive years. However, there are thousands of cows that live and produce twice as long as the average, and thus have a tremendous bearing on profits. It takes time, but we must strive to develop cows with a good inheritance for production. Such cows have a strong will to milk; given the right care they will seldom need to be culled for low production.

Type Important

Also, we must strive to develop cows with the right type — cows with wide flat bones in ribs and legs. They should possess good size according to their breed and have lots of dairy character. Also important are strong feet and legs, along with well-attached udders of soft pliable texture.

These helpful production and type characteristics can be obtained by degrees with a good breeding program year after year. It is much easier to acquire the characteristics which you desire for production than it is type. Therefore, more thought must be given to the latter, in weeding as well as breeding, but without forgetting that production is paramount.

It always amuses me when I hear someone questioning the importance of type. So often these critics seem to think that all type is good for is to win in the show ring, an experience in which they are not interested.

It might be well to remember that down through all of the centuries, dating back even to biblical times, the men of every generation have loved fine cattle and have striven constantly to breed better ones, be it for beef or dairy purposes. I don't believe the men of our generation are going to stop trying to breed a better type of dairy cow, or horse, or hog, just because someone says type is unimportant.

What manner of man can be so bold as to assume there is no need for further improvements in our animal types, or that the dairy breeds would not regress in usefulness if we forget type and breed for production alone?

Cow Comfort

Another management aid in keeping your cows around for a longer time is to provide enough room for freedom and comfort. Those terribly-narrow stalls with stanchions are fast becoming relics of a bygone day to progressive dairymen. They are such a hazard to cow health, especially udder damage with consequent mastitis, that the cost is high in turnover of cows.

So much has been written about loose housing with free stalls that I hesitate to mention the subject. I believe that loose housing and free stalls should always go together, and that they are here to stay.

The economic need for expansion as well as the economic need for better cow care is involved in the change-over. While visiting cattle breeders extensively throughout the Northeast, the author has observed a changing attitude toward loose housing among the better dairymen.

The advantages were considered by many to be debatable until free stalls were added, resulting in much cleaner cows, almost eliminating the "boss cow" problem, and cutting the cost of bedding by two-thirds. Since then hundreds of dairymen are getting on the band wagon, and the trend is gaining in momentum every day.

A recent innovation in free stalls, which started in the Midwest but which is not yet commonly used in the East, is to place a two-by-four three feet above the ground and twenty-two inches back from the front end of the stalls. This, it is claimed, keeps the cows from sometimes lying down with their heads so near the front end of the stalls that they have difficulty getting up.

Secondly, when the cows get up they automatically back up a little to get their heads above the cross piece. Simultaneously they drop their manure outside of the free stalls on the paved alley. This is what they are supposed to do with the original free stalls; the cross piece simply insures that they do it.

Health Factor

The health factor is of utmost importance in keeping cows in the herd and extending their productive life. Here is where the vigilance and experience of a herdsman-owner is really tested. And it is amazing what management can do through painstaking care in all the little details involved in keeping a herd breeding efficiently, and holding mastitis and injuries to a minimum.

In these days when many herds produce 500 or more pounds of butterfat in a year, sterility becomes a very grave problem. The incidence of acetonemia is also greater. Therefore the good herd manager will become just as thoroughly acquainted as he possibly can with all of his cows individually, and watch them closely. Promptness in veterinary service is of the essence.

Grandmas Pay

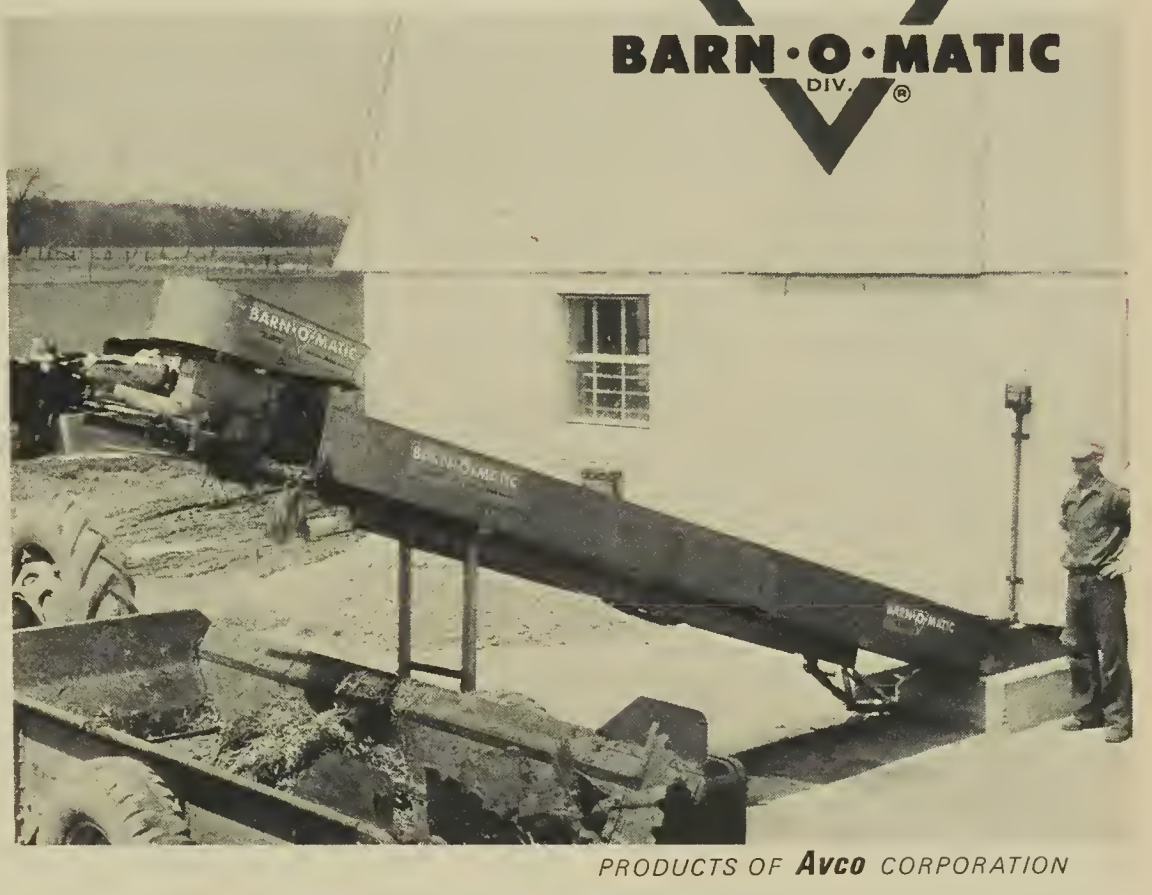
There are cows from all dairy breeds that prove the advantages of keeping cows in the herd for more productive years. Doing this reduces herd turnover and makes it possible to cull more rigidly. It also tends to give a higher herd average (with resulting higher income) because the average age of the cows in the herd is older; older cows produce more than heifers.

In herds of registered cattle there are additional advantages in the form of greater herd value; more breeding stock that can be sold instead of remaining in the herd for replacements. No question about it, "Grandmas Pay the Bills."

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CONCRETE FACTS

"Tilt-Up Concrete Agricultural Buildings," a comprehensive working sales tool for rural contractors, has been published by the PORTLAND CEMENT ASSOCIATION. The first part of the manual illustrates the various farm market applications of tilt-up, showing step-by-step construction procedures. The second section contains general estimating tables, work sheet aids for estimating, submittal drawing sheets with specifications, and space for a summary of estimates.

Builders who are interested in tilt-up construction or presently doing some tilt-up should contact their local ready-mixed concrete producer about participating in a Rural Builder Program. This is a three-evening program sponsored by local ready-mix producers and conducted by trained staff members of the Association.

Rural Builder Program graduates should contact sponsors to obtain free copies, or write the Portland Cement Association, 33 West Grand Avenue, Chicago, Illinois 60610.

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Some hospitals should also have a recovery room adjoining the Cashier's office.



Richard Ryan (left), fieldman for the I. L. Richer Co., and Read Adams, Farm Service Representative for the New York State Electric & Gas Corporation, take a look at a piece of a "Lester panel."

NEW POULTRY BUILDING

by Gordon Conklin

Herbert Hines of Hubbardsville, New York (Madison County) is using a recently-completed poultry house that incorporates some unusual ideas. The egg room, for instance, is built with "Lester panels" made up with 1/4 inch exterior plywood on both sides with 3 inches of polystyrene "foam" sandwiched in between. Interlocking edges on these panels, and the fact that they are available in many sizes, means they go up in jig time. No vapor barrier is needed because the plastic "meat" in the sandwich has a great resistance to water; it's practically a 100 percent teetotaler toward all liquids.

It's a windowless building, so there are plenty of powered fans — one 16-inch and two 36-inch on each end of each floor. The 16-inch fan exhausts air all the time; the bigger ones are on thermostats. Louvers on each end of building, and space under the "ribs" of metal roofing at roof's edge, let air in uniformly.

Sidewalls of the new poultry house contain 2-inch roll insulation (with vapor barrier); the outside "skin" is 3/8 inch plywood. There is 3 inches of insulation in the ceiling of the top floor.

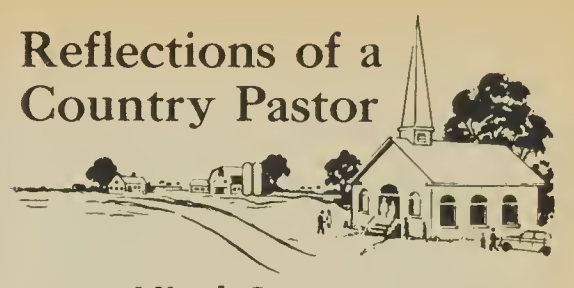
Lighting is provided by 60 watt bulbs 12 feet apart in the row, and 12 feet between rows. Herb uses 130-volt bulbs because they last longer than the standard 115-volt bulb.

Droppings are moved from the cage rows by mechanical cleaners to a cross conveyer that empties into neighboring dairyman Lester Barnes' hydraulic dump truck parked under a roofed area. Herb starts the cleaners going, then begins feeding, and both jobs are done at about the same time. Manure cleaner pits under the cage rows are made of 3/8-inch exterior plywood on the bottom with 2x6's forming the sides — except for the lower pit on the ground floor, which is made of cement block.



"Okay, man, go out in the garden and dig those crazy potatoes."

Reflections of a Country Pastor



Vital Question

IS YOUR child's birthright safe? You hope so; you think it is; you believe it to be! Suppose your questioner asks: "What are you doing to guarantee it?"

You answer: "Why, I see to it that he has food, clothing, shelter; that he is taught to be clean and sanitary; that he goes to school and gets his lessons; in other words, he gets nutrition, protection, sanitation, and education."

"Sure he does," the interrogator says, "because if you neglect the first two, the health officer gets after you; if you neglect the next one, the welfare officer checks up on you; and if you don't live up to the last one, the truant officer will look you up."

It is a not-so-well-realized fact that the Nation's greatest danger is the **spiritual illiteracy of her children.** We are sure to see that our public schools are well housed, equipped, and adequately staffed so that our youth may have the very best advantages possible for excellent education. Why cannot all realize that our churches are equipped and organized to help parents and their children develop Christian character? — Arthur Moody

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TO REMEMBER ALWAYS!

by Hazel B. Corliss



When a fellow comes home from school as hungry as can be, nothing fills that empty "tummy" like a thick slice of Mom's homemade bread covered with butter!

Photo: H. Armstrong Roberts

Many of you mothers have been busy recently getting your children ready for school — visiting doctor, dentist, and clothing store. Probably the kids are protesting loudly against returning to school, when actually they've had enough vacation and will be happy to get back into a regular routine. Their end-of-summer restlessness adds further strain to your "endurance contest," and by now you may think it's you who needs a vacation!

I haven't had the responsibility of young children this summer, but have been busy for my years what with weeding garden, harvesting and preserving our crops, washing separator and making butter, in addition to cleaning, laundry, company, and writing. So I was delighted when my sister phoned, inviting my husband and me to celebrate my birthday by having dinner at her home some sixty miles away. It was wonderful to enjoy a delicious meal that I had neither planned nor prepared.

Prize Loaf of Bread

Returning home, we stopped to look around the seminary from which I graduated years ago. And so it was that I stood again in the very room where I had once won first prize of $5 for making the best loaf of bread in my class! I remembered too, how my mother walked two miles over a country road to be there when I received my prize.

At the seminary I was surprised to learn that they had discontinued their domestic science course due to lack of interest. With all the modern mixes and other convenience foods, has teaching become unnecessary? Or have young folks lost interest in the old-fashioned art of homemaking?

When we lived in the city, I often made rolls, but seldom bothered with bread. But since coming to our small "Basin Farm" in Vermont nearly 17 years ago, I have made bread every week. Experimenting, I evolved my own recipe, and you will find it on this page. It takes patience and practice to make really good bread, and it is work, but a mother is richly rewarded in the happiness it affords her family. Homemade bread and fresh country butter are an unbeatable combination!

I read that the plastic makers are planning to introduce "polyscent." Hosiery and lingerie wrapped in polyethylene bags will be perfumed; artificial flowers will have the fragrance of fresh ones, and fruits and vegetables will smell field or garden-fresh.

Memory To Cherish

Do you suppose the chemists will be able to capture the heavenly aroma of baking bread? Even so, when children come home from school, no store-scented loaves could possibly hold the enchantment they will feel if their mother is there to greet them, to slice some of the warm bread she just made, and to spread some of her homemade jam on it! All their lives they will cherish the memory of mother, homemade bread, and how wonderful the kitchen smelled! I know, because I still remember . . .

I wish I had baked bread more often when our son was small. However, I was nearly always there when he came home from school, eager to tell me about the tough exam or the "A" he got in arithmetic. If I couldn't be there, a special note was left for him (a "just-between-us" kind) and something good to eat. In later years, he often told me how much this had meant to him.

It is a real necessity for some mothers to work, I know, but it seems to me that others should not accept so many civic duties and social activities that they are seldom home. There is a young mother in our church circle who always leaves the monthly meeting early so she can be home when her children return from school. Even though this means that she has to "eat and run," we older women admire her attitude.

I do hope that many mothers will continue to make their own bread for a long time. Through the centuries, bread has not only satisfied hunger, but has also been a symbol of the spiritual. There is the miracle of the loaves and fishes that fed the hungry multitude, and Christ at the Last Supper blessed and broke bread, giving it to His disciples.

We also are disciples, and God entrusts our children to us for only a little while. Let's give them homemade bread to remember through the years and spiritual bread to strengthen them as they grow to adulthood.

BASIN FARM BREAD

1 quart whole milk
2 cups water
2 tablespoons butter, rounded
2 tablespoons lard, rounded
2 tablespoons salt
2/3 cup sugar
2 packages dry or compressed yeast
17 cups sifted flour, approx.

Scald the milk, but do not boil. Add 1 cup water, the shortening, salt and sugar. Allow dissolved mixture to cool to lukewarm. Meanwhile soak the yeast in the other cup of lukewarm water until foamy and add to first mixture. Gradually stir in the sifted flour, beating to a smooth batter, keeping 1 cup for kneading. Turn on to floured board, and knead WELL until elastic and the dough "crackles." Add a little more flour if necessary.

Let rise in covered container away from drafts until double in bulk. Punch down or knead and allow to rise again. Return to board, knead slightly, then divide dough into four equal parts. From each part, cut off several 2-inch pieces to shape into biscuits. Put biscuits in greased 10-inch round pan. Shape the rest of dough into 4 loaves.

Place in greased pans (I use aluminum bread tins) and let rise until not quite double in size. Bake in a 350° oven for 10 minutes. Turn the pans around and reduce heat to 325° for 20 minutes; then turn to 300° for the last 30 minutes, one hour baking time in all. The biscuits will take only about 30 minutes; brush tops with butter when done.

After removing bread from oven, turn on to a tea towel, brush tops with butter, and allow to cool thoroughly before wrapping. (I put the extra loaves into plastic bags and freeze them. I find that freezing improves bread, making it more moist inside.)

Note: The beginner could divide my recipe, but it takes just as much time and fuel to bake the smaller batch. The butter gives flavor, the lard texture. I like the slow baking, and we prefer a rich golden crust. Do buy the best flour, and do not use more than absolutely necessary when kneading, or the bread will be too dry. Amount of flour required varies with the brand used.

PRAYER TO BE WHISPERED

By Eleanor Alletta Chaffee

Lord, have pity for all broken things;
The crippled bird beset by enemies,
The moth that struggles on its useless wings—
Have tenderness and pity for all these,
And for the heart that like a fallen leaf
Has not yet dreamed of April in its grief. . .

WHICH SHADE TREE?

by Nenetzin R. White

YOUR TREES can be dwarf, tall, broad, pyramidal, columnar, or whatever shape and size you want. While each location doesn't necessarily demand different trees, the proper selection and placement for your particular situation is important.

For esthetic beauty from the street side, it is suggested that you stand at the front entrance, or at the center of your house, and draw two imaginary lines from you to each front corner of your property. It is along these lines that shade trees should be placed, opposite each other for symmetry or, what I think is even better, at different spots along these lines.

In this way, you can balance a garage or low wing by having one tree closer to the house. Occasionally some architectural feature will cause you to use a different treatment, so remember this is only a rule of thumb. These trees should usually be high branching so that you can see the house, for what you are doing is framing your home.

Shade trees are strictly for shade — around your patio, porch, house areas, etc. Southeast and eastern exposures will bring the morning sun into your house, and this may or may not be desirable. For the most part, even though you want the early morning sun, a few shade trees are desirable to protect the body of your house near the roof and on the roof. Here again, you should use high-branched trees.

A southwest or western exposure usually needs more shade because by late afternoon, this side of the house is really hot. Here it is often wise to combine high-branching trees (for views, and air circulation) with a few low-branched ones that will shade the body of your house. For patios or porches, overhead shade for the daytime and a few low-branched trees to shade from a late afternoon sun are recommended.

Your borders or lot lines will frequently need the height of a few large shade trees, and the interest of shadows on your lawn is not to be overlooked. Small, low houses will most likely look out of proportion beside huge, 100-foot trees, so keep this in mind when you buy.

Maples and Oaks

Maples and Oaks are two of our best known hardwood trees for the Northeast, so I'll not go into detail with these, but will just point out a few features. A stately Sugar Maple can always be used somewhere on your property. If your house is small, it will probably look better in the background. Then, there is a small maple, Acer ginnala, which is shrub-like and grows to 25 feet, with even more striking fall color than the big maples.

All oaks are majestic, long lived, and probably won't get out of proportion in your lifetime. One that is rather fast growing is the Pin Oak (Quercus palustris). This is a symmetrical triangular shaped tree (shaped much like a Norway spruce) that can add great beauty to a corner planting, or keep the sun from the wall of your house.

Moraine Locust. One of the newer and, to my way of thinking, loveliest trees is the Moraine Locust (Glidetzia inermis). Reasonably low branched, but not so as to be offensive, and with a full light head, this fits into any landscaping plan. Since it's a legume, you can grow a good lawn under it, and its fast growth is combined with strength, so it won't shatter as will many fast growing trees. The leaves are pinnate and as they drop in the fall, they are absorbed into the grass or borders, so seldom if ever do you have to rake. It has no thorns and very rarely, flowers or seed pods. I think this is one of the most adaptable and finest trees under cultivation.

Tilia cordata or Little Leafed European Linden is a magnificent, dense, low-headed, symmetrical tree. It makes an excellent lawn specimen and has fragrant yellow flowers in late May.

Yellow-wood (Cladrastis lutea) is a beautiful small tree of about 45 feet. It resembles a beech, but has yellow bark and rather late flowering panicles of white which are about a foot long. I feel that this tree should be used more often than it is.



A few stately shade trees can add beauty to your lawn and make your home look like it "belongs" exactly where it was built.

Photo: Amer. Assn. Nurserymen

Katsura Tree (Cercidiphyllus) is another delightful small tree, growing to approximately 20 feet. The heart-shaped leaves are deep green above and a silver-green underneath; leaf stalks and veins are often red. Fall coloration of this tree is different and lovely, its colors being purplish red and yellow.

Russian Olive (Elaeagnus angustifolia) is often listed as a large shrub, and it is a strikingly different plant. The silver whiteness of its foliage against an almost black bark makes it a conversation piece.

More To Come

Since there are so many delightful shade trees, as well as the now

(Continued on page 43)

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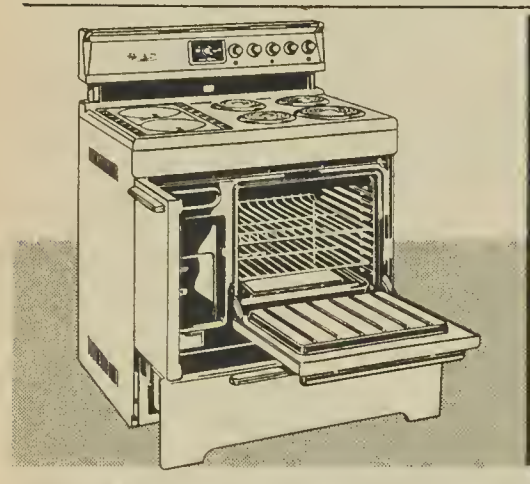
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BAKING CHAMPIONS!

by Augusta Chapman, Home Editor

Every day brings us the name of another winner in the big Coffee Cake Contest which the New York State Grange and American Agriculturist are sponsoring this year. This list is almost complete now, as we still have to hear from only 16 counties. Names of the winners received since last month's news article was written are as follows:

POMONA WINNERS

COUNTY	GRANGE	WINNER
Cattaraugus	Gawanda	Mrs. Curtis Calburn
Clintan	Peru	Mrs. Margaret Staffard
Columbia	Livingstan Manar	Mrs. Anna Pulver
Delaware	Delhi	Mrs. Robert Narthrap
Dutchess	Mt. Hape	Mrs. Welhelmina Waad
Erie	Halland	Mrs. Graydan Savage
Fultan	Crum Creek	Mrs. Ethel Reese
Herkimer	Nawadaga	Mrs. Margaret Karce
Manrae	Brackpart	Mrs. Earl Canraw
Ontaria	Canandaigua	Mrs. Arthur Reed
Orleans	Waterpart	Mrs. Frances Landis
Rensselaer	West Sand Lake	Mrs. Barbara Pfeiffer
St. Lawrence	Lisban	Mrs. Lean Dawley
Suffalk-Nassau	Sauthamptan	Mrs. Herman Saar
Sullivan	Blaamingburg	Mrs. Ray Jahnsan
Washingtan	Shushan	Mrs. Herman Kruse
Wyaming	Castile	Mrs. Lila Barber

There's plenty of excitement on contest night in the Granges, and I enjoy the reports from Pomona chairmen of Service & Hospitality Committees who have charge of the county contests. Here are brief quotes from some of their letters:

Mrs. Frances M. Allen, Delaware County: "Our winner, Mrs. Robert Northrop, was so thrilled when she called her S. & H. chairman to tell her she'd won first place, a 25-lb. bag of flour, a bottle of molasses and a book of "Molasses Magic." I had 12 coffee cake entries, so you see why I'm proud of Delaware County Grangers."

Mrs. Kathryn C. Spoor, Dutchess County: "The morning of our Pomona meeting was far from perfect for anyone trying to bake with yeast, and our winner, Mrs. Samuel Wood, said she hated to have her cake entered in the contest! I thought we had lovely coffee cakes (15), and just wish there could have been more."

Mrs. Helen Buffum, Erie County: "Mrs. Graydon Savage, our winner, is a very loyal Granger and has a class of Juveniles. In a few words, she is just a modest, wonderful woman, and her cake was delicious."

Mrs. Emma Case, Ontario County: "Mrs. Joyce Reed was master of Canandaigua Juvenile Grange during her membership in that unit. At present she and her husband are living on a farm with their five children. Mrs. Reed said she baked five coffee cakes the morning of the contest, and finally sent the first one she made!"



MRS. M. STAFFORD
Clintan Caunty



MRS. A. PULVER
Columbia Caunty



MRS. F. LANDIS
Orleans Caunty



MRS. B. PFEIFFER
Rensselaer Caunty

Mrs. Helen D. Benthin, Orleans County: "Our winner, Mrs. Frances Landis, is mother of four children. She enjoys baking and cooking very much and is an active member of her church and Grange. Mrs. Landis made the same coffee cake for her family's Christmas breakfast last year."

Mrs. Dorothy M. Weir, Fulton County: "This is the 8th time that Mrs. Reese has won first prize in the Fulton County Pomona baking contest. She was also third prize winner in the State Contest one year."

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BIGGEST AND BEST EVER!

THEME OF THE WOMEN'S Division at the 1964 New York State Exposition (September 1-7) is "Spotlighting the Home and the Arts," with a large part of the exhibits and demonstrations planned to show you how to be a good homemaker in an efficient and easy way.

In the Home Arts and Crafts Departments, demonstrations will help you perfect your skills in many of the home arts including weaving, rug making, sewing, quilting, ceramics and crewel



In the Home Arts and Crafts Department, you will see articles of fine workmanship done by homemakers all over the State. Shown here is a display of crewel embroidery.

work. And, of course, there'll be the usual showing of prize-winning articles made by talented homemakers all over the Empire State.

Master chefs will be on hand in the Food Demonstration Kitchen to show you how to whip up tasty dishes to delight your family, and give you handy tips on time and money savers in the kitchen. An outstanding array of foods experts will give demonstrations on everything from Chinese cooking to barbecuing indoors and out. Among noted authorities scheduled to be present are Madame Grace Chu, author of "The Pleasures of Chinese Cooking"; Paula Peck, author of "The Art of Fine Baking"; Elsie Masterton, author of the Blueberry Hill Cookbooks; IGA Celebrity Chef Eddie Doucette, and Rita DuBois of the R. T. French Co., who will lend advice on cooking with herbs and spices.

The Demonstration Kitchen staff has saved each evening from 7 to 10 p.m. to explain the workings of their equipment (the most modern and up-to-date to be found anywhere), for handing out samples of their recipes and discussing your various cooking problems with you.

Fashion Show

The fashion show on Monday, September 7, will have a new twist, for all apparel modeled will be things you can make yourself. The show is being put on by McCall's Pattern Corp. and will emphasize the do-it-yourself aspect. In addition, this year the 4-H Dress Revue will be presented as part of the women's program. 4-H members from all over New York State, selected for their dressmaking ability and poise, will model their own creations at three shows on Saturday, September 5.

"How To Properly Light Your Home" will be the theme of the Extension Service Home Demonstration program. Also a model



Celebrity Chef Eddie Doucette will show you how he prepares some of his special dishes with ease in the Food Demonstration Kitchen.

room will give you tips on how to artistically plan and arrange a room. A completely new model home will be exhibited on Empire Court with moderate pricing the feature noted in both the building and decorating of this year's model home.

Spelling Bee with Robert Earle

For the first time in over 20 years, the Exposition is sponsoring a Spelling Bee. This exciting contest will be held on opening day with G. E. College Bowl moderator Robert Earle on hand to give out the words. Representatives through Grade 12 from each area of the State have been chosen to participate.

Women's Day will be Wednesday, September 2, this year. Mrs. Helen B. Vandervort, Women's Division Director, says that tickets for the annual luncheon can be obtained by writing to her at the New York State Exposition, Syracuse, N. Y. Featured at the luncheon will be presentation of Community Service Awards to women's groups who have contributed their time and energies toward the betterment of their communities through worthwhile civic projects.

Which shade tree?

(Continued from page 41)

very important smaller trees, I'm going to do this article in two sections. My October column will describe other varieties with which I want you to be familiar.

Before closing, just a word about care. All new trees should be guyed, and be sure to run the wire through a hose, or in some way protect the plant from direct contact with the wire. Keep these guy wires tight. Wrap the trunk with tree wrap, and water deeply at least once a week unless you have abundant rain. Also sprinkle the foliage lightly. A good organic or partially organic fertilizer should be applied in late fall or early spring.

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Spirea Van Houttei—White, 1 to 2 ft.	.19 ea.
Althea—Red, Purple, or White, 1 to 2 ft.	.15 ea.
Forsythia—Yellow, 1 to 2 ft.	.15 ea.
Pink Spirea, 1 to 2 ft.	.15 ea.
Pink Flowering Almond, 1 to 2 ft.	.39 ea.
Tamerix—Pink Flowers, 1 to 2 ft.	.39 ea.
Bush Honeysuckle—Red or Pink, 1 to 2 ft.	.19 ea.
Red Flowering Quince, 1 to 2 ft.	.29 ea.
Persian Lilac—Purple, 1 to 2 ft.	.29 ea.
Old Fashion Lilac, 1 to 2 ft.	.39 ea.
Bridal Wreath Spirea, 1 to 2 ft.	.39 ea.
Hydrangea P. G., 1 to 2 ft.	.29 ea.
Deutzia or Mockorange, 1 to 2 ft.	.15 ea.
Sweet Shrub, 1 to 2 ft.	.15 ea.
Rose of Sharon—Mixed Colors, 1 to 2 ft.	.09 ea.
Red Ozier Dogwood, 1 to 2 ft.	.15 ea.
Pussy Willow, 1 to 2 ft.	.19 ea.
Hibiscus Mallow Marvel	.12 ea.
Russian Olive, 1 to 2 ft.	.29 ea.
Red Barberry, 1 to 2 ft.	.39 ea.
Japanese Snowball, 1 to 2 ft.	.59 ea.
Snowberry—Red or White, 1 to 2 ft.	.19 ea.
Spirea Anthony Waterer Dwarf-Red, ½ to 1 ft.	.39 ea.
French Lilac—Red, or Purple, 1 to 2 ft.	.95 ea.

FLOWERING TREES

Magnolia, Grandiflora, 1 to 2 ft.	.59 ea.
Mimosa—Pink, 3 to 4 ft.	.29 ea.
American Red Bud, 2 to 3 ft.	.25 ea.
White Flowering Dogwood, 2 ft.	.19 ea.
4 to 6 ft.	.79 ea.
Pink Flowering Dogwood, 2 ft.	1.59 ea.
3 to 5 ft.	2.98 ea.
Golden Chain Tree or Golden Rain Tree, 1 to 2 ft.	.59 ea.
Smoke Tree, 1 to 2 ft.	1.25 ea.
Purple Leaf Plum, 2 ft.	.39 ea.
Flowering Peach—Red or Pink, 2 ft.	.39 ea.
Flowering Crab—Red or Pink, 2 to 3 ft.	.59 ea.
Chinese Red Bud, 1 to 2 ft.	.69 ea.

SHADE TREES

Silver Maple, 3 to 4 ft. 19 ea., 5 to 6 ft.	.69 ea.
Weeping Willow, 2 to 3 ft.	.29 ea.
4½ to 6 ft.	.49 ea.
Chinese Elm, 3 to 4 ft. .25 ea., 4½ to 6 ft.	.49 ea.
Catalpa Fish Bait Tree, 2 to 3 ft.	.25 ea.
Ginko Tree, 1 to 2 ft. .69 ea., 3 to 5 ft.	1.98 ea.
Pin Oak, Red Oak, or Scarlet Oak, 2 to 3 ft.	.69 ea.
Lombardy Poplar, 3 to 4 ft.	.18 ea.
5 to 6 ft.	.59 ea.
Faassen Red Leaf Maple, 3½ to 5 ft.	3.49 ea.
Sycamore, 3 to 4 ft.	.39 ea.
Sugar Maple Collected, 3 to 5 ft.	.39 ea.
Sweet Gum, 2 to 3 ft.	.39 ea.
White Birch, 2 to 3 ft.	.49 ea.
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3½ to 5 ft.	.79 ea.
Elberta Peach, 2 to 3 ft.	.39 ea.
3½ to 5 ft.	.79 ea.
J. H. Hale Peach, 2 to 3 ft.	.39 ea.
3½ to 5 ft.	.79 ea.
Red Delicious Apple, 2 to 3 ft.	.49 ea.
Yellow Delicious Apple, 2 to 3 ft.	.49 ea.
Cherries, Montmorency, or Bl. Tartarian, 2 to 3 ft.	.85 ea.
Pears, Kieffer or Orient, 2 to 3 ft.	.85 ea.
Plums, Burbank, or Metheley, 2 to 3 ft.	.49 ea.
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VINES

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Bitter Sweet, 1 ft.	.17 ea.
Clematis Vine Collected White, ½ to 1 ft.	.19 ea.
Grape Vines, Concord, ½ to 1 ft.	.45 ea.

NUT TREES

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Nandina, ½ to 1 ft.	.29 ea.
Boxwood, ½ ft.	.39 ea.
Irish Juniper, or Savin Juniper, ½ to 1 ft.	.39 ea.
Red Berry Pyracantha, ½ ft.	.49 ea.
Burfordi Holly, ½ to 1 ft.	.49 ea.
Wax Leaf Ligustrum, or Jap Ligustrum, 1 ft.	.39 ea.
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14½—24½

9261
2—8



4565
10—20





4831
14½—24½



9077
S—10—12
M—14—16
L—18—20



4766
10—18





4928
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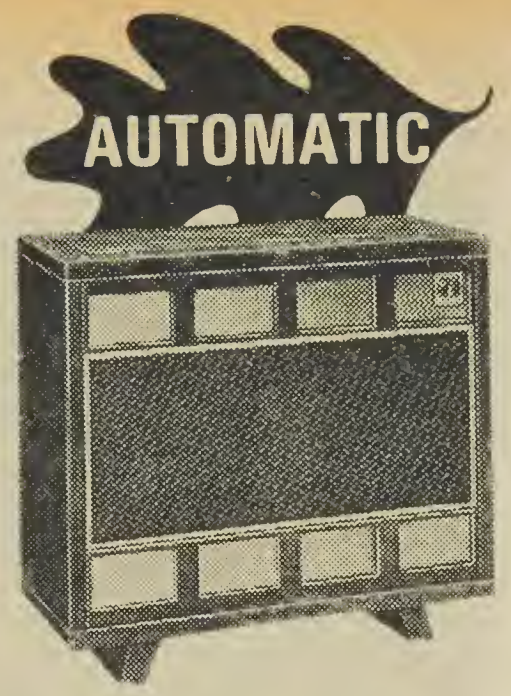
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Dad! Mom! Please . . . lead the way to the litter basket. Use car litter-bags, too. Make it a family project to keep streets, highways litter-free.

KEEP AMERICA BEAUTIFUL

WAYS WITH FALL FRUITS

by Alberta D. Shackelton

FALL'S FRUIT BASKET, laden with its appealing assortment of grapes, plums, apples and pears, cannot be equaled at any other season, and homemakers welcome these crisp, tart, juicy fruits to bring new interest and taste enjoyment to their meals. All this, and more too — the wonderful health-giving minerals and vitamins carried in every serving!

Every cook has her pet ways of preparing and serving fall fruits, and here are a few more recipes for you to try and add to your recipe file if you like them.

CONCORD GRAPE PIE

5 cups Concord grapes
1 1/3 cups sugar
3 to 4 tablespoons flour
1 tablespoon lemon juice
1 tablespoon grated orange rind
Pastry for 2-crust, 9-inch pie
1 tablespoon butter

Wash and stem grapes. Remove skins and save. Cook pulp to boiling and rub through a coarse sieve to remove seeds. Combine pulp and skins with the sugar, flour, juice and rind. Place in a pastry lined tin and dot with butter. Cover with top crust, trim, seal and flute edge. Cut several slits in crust near center to allow steam to escape. Instead of top crust, cover with lattice pastry topping if desired. Bake in a hot oven (425°) until crust is lightly browned and juice bubbles up in the center, about 35 to 45 minutes.

GRAPE MERINGUE PIE

4 cups stemmed Concord grapes
1 1/4 cups sugar
4 tablespoons cornstarch
3/4 cup water
1 tablespoon orange juice
1/4 teaspoon salt
1/8 teaspoon cinnamon
1 tablespoon butter
1 baked 9-inch pastry shell
3 egg whites
6 tablespoons sugar

Remove skins from grapes and save. Cook grape pulp to boiling and rub through a coarse sieve to remove seeds. Combine pulp and skins with sugar, cornstarch, salt, juice and water. Cook over low heat until thickened, stirring constantly. Add cinnamon and butter and turn into baked shell. Top with meringue made with egg whites and sugar. Bake in a moderate oven (350°) about 5 minutes or until meringue is delicately browned.



GRAPE CONSERVE

3 pounds Concord grapes
3 oranges
1 1/2 cups seedless raisins
3 1/4 cups sugar
1 1/2 cups coarsely chopped walnuts

Wash and stem grapes. Slip skins from pulp. Cook pulp to boiling and put through a coarse sieve to remove seeds. Cook skins in a little water until tender. Quarter oranges, remove any seeds, and slice very thin.



Combine grape pulp, skins, oranges, raisins and sugar; mix well and cook until thick and clear, stirring frequently. Add nuts and pour into hot sterilized jars and seal. Makes about 8 6-ounce jars.

WAYS WITH PEARS

Blushing Baked Pears — Peel and core 6 large firm Bartlett pears. Cut thin slice off blossom end and stand upright in a baking dish with cover. Sprinkle pears with sugar and add enough water to cover bottom of pan. Add 1 tablespoon chopped candied ginger, 1 tablespoon grated lemon rind, and a few drops of red coloring. Cover and bake in a quick moderate oven (375°) 20 to 30 minutes, or until pears are tender, basting several times with liquid in dish.

If you wish, place 1/2 to 2/3 cup red cinnamon candies in the dish and omit sugar and red coloring. To serve, make crisscross cuts in top of each pear and top with whipped cream.

Pear Melba — Follow above recipe, omitting red coloring or candies. To serve, place each pear on a scoop of vanilla ice cream and top with raspberry sauce made by thawing and slightly thickening one package of frozen raspberries with a little cornstarch.

Spiced Blushing Pears — Follow above recipe, sticking 4 to 6 cloves in each pear before baking and placing a 2-inch stick cinnamon in water in baking dish.

Stuffed Baked Pears — Follow above recipe, omitting red coloring or candies. Stuff pears before baking with a filling of dates and marshmallows, raisins and nuts, mincemeat, cocoanut and orange marmalade, or other favorite mixture.

PLUM TART

1 cup flour
1/3 cup soft butter
1 egg
1/4 cup sugar
1/8 teaspoon salt
1 tablespoon grated lemon rind
4 cups sliced plums
1/2 cup sugar
1 tablespoon flour
2 tablespoons butter
1/2 teaspoon cinnamon
1/2 cup finely chopped nuts

Combine butter, sugar, egg, salt, and rind and work quickly into flour, using a little water or milk if necessary, and form into a ball. Cover, chill, roll thin, and line a 9-inch pie pan. This makes a cookie-like crust.

Arrange sliced plums over the pastry. Mix remaining ingredients together with the fingers and sprinkle over the plums. Bake in a quick moderate oven (375°) about 30 minutes, or until crust is done and plums cooked.

SPICED PLUMS

5 pounds plums
3 pounds sugar
1 pint vinegar
1 tablespoon whole cloves
1 tablespoon whole allspice
1 2-inch piece stick cinnamon

Wash plums and prick well with a fork. Combine sugar, vinegar, and spices tied in a cheesecloth bag and boil for 5 minutes. Pour boiling hot over the plums; cover and let stand for 3 days. Lift out plums, boil down the sirup until slightly thickened, add plums and reheat to boiling. Pack into hot sterilized jars and seal. Makes about 5 pints.

FRESH PLUM SLAW

3 cups finely shredded cabbage
2 cups thinly sliced fresh plums
1/2 cup sour cream
2 tablespoons mayonnaise or salad dressing
1 tablespoon lemon juice
Salt to taste
Crisp salad greens
Plum and pecan halves

Combine cabbage and plum slices and toss with cream, mayonnaise, lemon juice. Salt to taste. Place in salad bowl lined with crisp greens and garnish with plum and pecan halves.

Note: In place of the sour cream dressing, you may use your own favorite slaw dressing.



APPLE DUMPLINGS DELUXE

2 1/2 cups flour
3 teaspoons baking powder
1 teaspoon salt
3 tablespoons sugar
2/3 cup shortening
1/2 cup milk, approx.
6 medium sized apples, pared and cored
2 tablespoons butter
1/2 cup honey
3/4 teaspoon cinnamon
1/2 teaspoon grated lemon rind
1/2 cup coarsely chopped nuts

Sift together flour, baking powder, salt and sugar. Cut in shortening until mixture resembles coarse meal. Add milk gradually, stirring with a fork, and using just enough to moisten. Press into ball. Roll dough on a slightly floured board into oblong shape of about 13 x 20 inches. Cut into 6 equal-sized squares.

Place an apple in the center of each square and fill cavity of each with a mixture of the butter, honey, cinnamon, rind, nuts (and raisins or dates, if desired). Moisten edges of each square with water. Bring corners up over apples, overlap slightly, and press down. Pinch edges of dough together with floured fingers. Cut small slits in sides of dumplings.

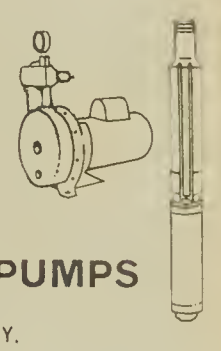
Place on greased shallow pan and bake in a moderate oven (350) about 40 to 50 minutes or until pastry is browned and apples tender. Serve warm with hard sauce, foamy sauce, sweetened milk, or vanilla ice cream.

WHAT'S NEW IN SEED?
quite a few things you should know about
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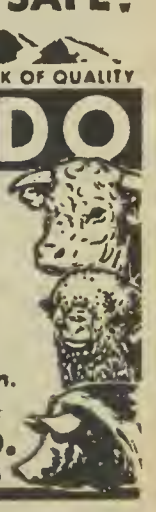
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ED EASTMAN'S PAGE

"GET A HORSE!"

When we moved on our farm at Etna, near Ithaca, in 1943, there were work horses on every farm in the neighborhood. When we sold the farm just 14 years later, there was not one farm horse left in the whole community. That's how fast progress — or at least change — has come.

I grew up with, took care of, and drove horses all of my early life, and I certainly knew all kinds — good, bad, and indifferent; kickers, biters, pullers, balkers, and runaways. But most of the horses I knew were good, hard-working, intelligent, gentle and efficient. No one could work long days in the fields and woods with a horse without thinking of him as a friend.

Day after day one summer I worked with Molly in a large potato field on a plateau atop a big hill, cultivating potatoes with a one-horse cultivator — back and forth, back and forth all the long forenoon. At noon I ate my lunch in the shade out of a pail carried from home, while Molly munched her oats. Then we went back to work again. I still remember Molly as a good friend.

No one, of course, would ever want to go back to horse power on the farm, nor can the horse ever compete with the tractor in doing farm work, but I agree with a middle-aged farmer friend who said to me recently:

"Ed, I miss my horses. You can damn a tractor but you can't love one! Farmers lost something when the horses went."

Not For Riding

But there was one thing that most farm horses were not good for and that was riding. We had no saddle, so sometimes I rode a horse bareback to the back end of the hill pasture to bring home the cows. The one I usually rode had a sharp backbone, and when I tried to trot him his feet would come down like a thousand bricks, jarring every bone in my body, making me wonder when I got off that sharp back if there were not two of me instead of just one!

Ever try to balance a milk pail between your legs after riding a horse bareback? If you have, you will remember how the muscles of your legs were so paralyzed that you could hardly hold the pail.

But, fortunately, while the farm horse has gone into the limbo, we still have riding horses with us, and they are rapidly increasing.

Our son, Robert, married a Texas girl, Tenney Williams, who was raised on a ranch in western Texas — where her father and mother still live and farm. All of her life, in common with other Westerners, Tenney almost lived on the back of a horse. Instead of jumping into a car as our young people do now, Tenney rode a horse; like me, she grew up with and loved horses. Where we used to work with and drive horses, she rode them.

Not willing to give up horses entirely, Bob and Tenney are cooperating with Tenney's father in growing a herd of beautiful riding horses on her father's ranch, and their stories about these horses — which they see on vacations — and about Tenney's adventures with horses when she was growing up, make me wish that I were younger so that I could own and ride one.

Quarter Horses

This summer Tenney went to Texas, and with the help of relatives she and Bob bought 24 beautiful quarter horses, loaded them on a truck, and brought them to a farm near Ithaca. Unlike our farm horses, a quarter horse is a small animal, weighing less than 1,000 lbs.; but he is a tough horse with all kinds of endurance and courage. With a man on his back, a quarter horse is one of the fastest animals on four legs.

The name — quarter horse — comes from the fact that he can run a quarter-mile faster than any other horse. He is an easy keeper, pretty, very intelligent, gentle and affectionate, making him a fine pet for children, and he soon becomes almost a member of the family.

Bob and Tenney sold half of their truckload at an auction soon after the horses arrived. Those that are left will soon be gone — except for two which they will keep for their own use.

It's interesting to note the comeback of the riding horses, testifying to the abiding love of man for the animal which has been his almost constant companion and friend for thousands of years.



Photo: Bill Pyle

At 27 months this buckskin quarter horse, "Skeeter," (rider Robert Eastman) has learned to neckrein and to foxtrot working under a training halter rather than a bridle. He'll soon be ready to work or play all day. (See story on this page).

SEPTEMBER AGAIN

The good old summertime is gone again — and how I hate to see it go. The older we get, the faster the seasons seem to roll by.

September is a good month. It's a time of fruition — the payoff time when the results of our hard season's work are apparent.

September is a beautiful month, a time that is mellow and soft — the quiet broken only by the chirping of insects or the har-r-rumphing of Mr. Bull Frog arguing with his mate down the creek. It's a time when the green of the spring and summer is giving way to the flaming colors of Autumn. It's a good time to be alive.

George Arnold, the poet, says it well in *September Days:*

"O sweet September, thy first breezes bring
The dry leaf's rustle and the squirrel's laughter,
The cool fresh air whence health and vigor spring
And promise of exceeding joy hereafter."

WELL BEGUN IS HALF DONE

In a few days thousands of young men and women will be leaving home to enter their freshman year in college. Very likely there will be someone from your own home looking forward eagerly to starting a new life.

In the last three years I have had over 700 hour-long interviews with college students, mostly freshmen, and have attempted to help them solve their personal and academic problems. Out of all that experience, there is one point that I can't over-emphasize — A freshman must get off to a good start or he may fail.

College studies are much harder than high school work, and there is a tremendous amount of necessary reading and studying to be done.

The work of college students is not checked on every day. The students are largely on their own. So when the tests or examinations begin to come, showing them where they stand, it often is too late to catch up, and they get busted out of college — with all of the unhappiness that that brings. Time and again, late in the semester, students have come to me almost in despair saying frankly that they had wasted time — but no matter how much I sympathize, it is too late to help them.

Won't you be sure to urge your son or daughter or friend not to waste time during those first all-important weeks?

THEN AND NOW

As a friend of mine stood with me looking at a 60-acre cornfield one day this summer, I asked him how he would like it if he had to harvest all those acres of heavy corn alone by hand. He said, of course, that neither he alone, nor he and his neighbors working all fall, could ever do it.

But this year, with modern equipment, he will harvest 60 acres of corn alone without touching it with his hands! Older men who remember the backbreaking job of silo-filling in the old days will know how fast modern machinery has changed all of our farming methods.

EASTMAN'S CHESTNUT

Two little old ladies were trading experiences about their physical troubles, as many people both old and young are wont to do. Finally, one little lady said to the other:

"I can get along with my liver trouble by controlling my diet, and I take pills for my *arthuritis.* My false teeth don't bother me any more; my bifocals fit just fine and I can read all but the fine print, but oh, my land! how I miss my mind!"

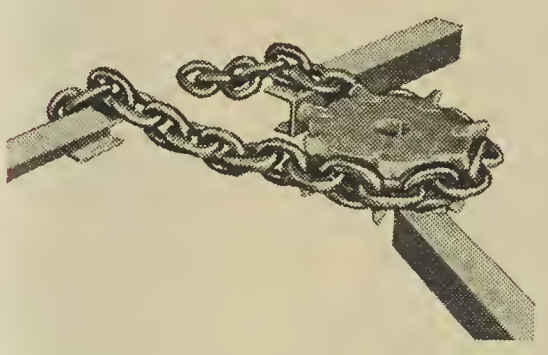
Or — put to verse — it goes like this:

"My bifocals give me pleasure
My dentures fit me fine
My bra gives me an uplift
But oh how I miss my mind!"

American Agriculturist, September, 1964

A *COMPLETE* BARN CLEAN-UP IN *MINUTES?*

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(refund an shoes)

CORRESPONDENCE SCHOOLS

This time of year many interested young people are likely to be approached by representatives of out-of-state trade or correspondence schools. Do not be rushed into signing a contract for such a course without taking time to check on the reliability of the school. Accredited schools have no objection to your checking.

The following hints may be helpful:

The New York State Department of Education requires that anyone practicing nursing in the state must be graduated from an approved school.

Major airlines have their own qualifications for all classes of jobs, as well as their own training programs.

No school can promise to equip you for a civil service examination or job.

ADDRESSES WANTED

James W. Hatch, former teacher of agriculture at Munnsville, N.Y., and with the Education Department at Albany, whose last known address was Kinderhook, N. Y.

* * *

Mr. Lewis Sanders, hay dealer, formerly of Sussex, N. J.

* * *

Edward Adolph and his half-brother, Fred Rayhem or Renehan. Their parents were Peter and Anna Adolph and they had a brother, Karl.

* * *

John McCann, about 70, whose home was Watervliet or Albany, N. Y.

* * *

Frank Leon and 2 brothers, Louis and Vincent Leon, possibly in Rochester, New York or Florida.

* * *

Mrs. Esther & Mr. John Nally formerly 1 Mill Road, Rensselaer, N. Y.

* * *

Mrs. Mary MacQueen whose former address was 61 Washington St., Rensselaer, N. Y.

* * *

43 Days In Hospital



Convalescing at home Mr. Gordon Barron, Woodstock, Vt. received check for $1005.00 and wrote this letter of thanks:

"I'd like to say thanks for the checks in payment of my claim and for the prompt service. When I took out the insurance I never thought a simple accident like mine would amount to so much and make me so happy to have the policies."

Gordon J Barron

While doing carpentry work Mr. Barron stepped from a saw horse to a window sill, missed his footing and fell to the floor. He suffered a back injury.

OTHER BENEFITS PAID

Lilla Knaggs, Altamont, N.Y.$ 430.00
Fell—fractured pelvis

Catherine Caner, Black Creek, N.Y. 216.01
Fell on steps—badly broken arm

Harry Kalagian, Binghamton, N.Y. 343.31
Fell—broke ankle with displacement

Harland Bryant, Salamanca, N.Y. 429.99
Put arm thru window—cut forearm, tendons, muscles

Forest Collins, Aurora, N.Y. 262.28
Fell off wagon—injured back

Burton H. Wilkinson, Forestville, N.Y. .. 710.03
Fell from sprayer—broke ribs, injured arm

Harlow Bennett, Elmira, N.Y. 396.00
Can fell on foot—fractured bones

Cathleen E. Fernalld, Greene, N.Y. 182.50
Cow hit knee—injured knee joint

George Seamans, Mooers, N.Y. 120.00
Plank fell on foot—fractured toe

Harold V. Boice, Copake, N.Y. 216.78
Baler frame fell on foot—broke bones

Wilbur J. Forbes, Homer, N.Y. 433.00
Crushed by cow—internal injuries

Archie James, Delancey, N.Y. 557.83
Steering wheel of tractor spun—injured hand, wrist, shoulder

Carlton F. Gernold, Boston, N.Y. 705.21
Kicked by cow—severe knee injury

Harold Theal, Elma, N.Y. 1705.00
Fell off silo—severe fracture of arm & leg

Elizabeth Boadway, Chateaugay, N.Y...... 157.50
Fell—injured ankle, elbow

Hazel Vosburgh, Gloversville, N.Y. 171.28
Tripped & fell—broke shoulder

George Morrison, LeRoy, N.Y. 1129.95
Slipped on truck—badly injured eye

John Camerona, Frankfort, N.Y. 294.95
Auto Acc.—injured knee, shoulder, cuts

Francis H. Bacon, Carthage, N.Y. 204.45
Slipped & fell—injured thigh

Ronald Zehr, Croghan, N.Y. 1005.12
Cut hand on mowing machine

Edward Benson, Lima, N.Y. 385.91
Struck head, thrown backwards—injured head, back

Donald K. Phillips, Madison, N.Y. 510.75
Thrown against tractor dash—injured knee

Harold R. Merkel, Ionia, N.Y. 574.28
Wound around power take-off shaft—injured hand, back, knee

Raymond Nagele, St. Johnsville, N.Y. 300.00
Gored by bull—fractured rib, bruises

Mildred T. Langendorfer, Barker, N.Y. .. 119.99
Caught hand in fan—multiple cuts of fingers

Nicholas Slavinski, Lee Center, N.Y. 440.71
Auto acc.—injured shoulder, bruises

Ferne J. Parcells, Tully, N.Y. 932.75
Slipped on wet floor—fractured hip

Wilfred Miller, Holcomb, N.Y. 629.30
Auto acc.—head injury

Jessie S. Smith, Slate Hill, N.Y. 760.00
Pedestrian acc.—injured shoulder & thigh

Nathan Frank, Albion, N.Y. 235.71
Crushed by cow—injured hip

George A. Clark, Central Square, N.Y. .. 321.93
Fell—injured knee

Kurt Seiforth, Garrattsville, N.Y. 1205.45
Auto acc.—broke ribs, crushed chest

Forrest T. Norton, Valley Falls, N.Y. 160.00
Crushed by cow—fractured wrist

Mayfred Stowe, Colton, N.Y. 333.37
Slipped & fell—severe knee injury

Clarence Reed, Heuvelton, N.Y. 381.00
Slipped and fell—internal injuries

Kenneth Chichester, Stamford, N.Y. 304.69
Run over by tractor—injured knee, leg, back

R. L. Caldwell, Jr., Watkins Glen, N.Y. 179.98
Kicked by cow—injured arm

Arnold Lawrence, Arkport, N.Y.$ 279.86
Truck acc.—cut face, multiple bruises

Ford L. Woodward, Avoca, N.Y. 260.00
Kicked by cow—fractured leg

Leander Glover, Cutchoque, N.Y. 415.00
Auto acc.—fractured knee

Robert Klossner, Owego, N.Y. 653.88
Playing football, injured knee

Eugene Palmer, Locke, N.Y. 309.89
Using tablesaw—cut fingers & tendons

Benjamin Van Wagaen, Kingston, N.Y. .. 482.39
Cow stepped on leg—broke ankle

Floyd Chapin, Granville, N.Y. 576.28
Fell—fractured leg

Isaac Zonneville, Williamson, N.Y. 286.02
Stepped off tractor into hole—chip fractured ankle

Clarence Neamon, Arcade, N.Y. 123.00
Kicked by cow—injured back

Clyde Scott, Himrod, N.Y. 317.62
Hand caught in corn picker—severe cuts & bruises

Harold Kring, Ulster, Pa. 805.08
Kicked by cow—badly broken leg

Ralph Schoonover, Westfield, Pa. 109.28
Slipped into hay chute—broke ribs

Rex Parker, Tioga, Pa. 520.00
Thrown off truck—injured ankle

Leon Baldwin, Little Meadows, Pa. 335.00
Slipped & fell loading milk—injured back

Seth Morley, Genesee, Pa. 550.00
Kicked by cow—injured knee

Rodney Watrous, Corry, Pa. 571.11
Auto acc.—fractured knee

John Rickard, Honesdale, Pa. 103.57
Squeezed by cow—injured back

Robert R. Kucharski, Hackettstown, N.J. 212.86
Caught in V-belt of harvester—tore tendons in finger

Sidney Tilstra, Milford, N.J. 575.35
Playing football—injured knee

Phillip F. Stupp, Toms River, N.J. 263.72
Auto acc.—injured ribs, back

Fred Wooden, Lambertville, N.J. 124.00
Kicked by cow—broke teeth and cut lip

Glendon Coleman, Elmer, N.J. 207.98
Fell from tractor onto spreader—injured back

Roland Coleman, Elmer, N.J. 118.00
Combine ran over foot—injured ankle

Mervin Maloney, Denton, Maryland 251.42
Auto acc.—fractured foot

Aubrey Rice, Charlemont, Mass. 1071.43
Fell from truck—fractured skull, ribs

Beatrice Rice, Williamsburg, Mass. 99.50
Fell—injured shoulder

Steven Sena, Blandford, Mass. 170.00
Fell off ladder pruning trees—broke clavicle

John M. Pitiaci, Barre, Mass. 154.00
Stepped on nail—puncture wound foot

Edmund Rowe, Dover Foxcroft, Me. 361.00
Caught hand in machinery—cut tendons

Leonard Kimball, Bethel, Me. 285.70
Auto acc.—fractured clavicle

George Crocker, St. Albans, Me. 252.86
Fell from ladder & landed on tractor—injured back

Edith Daniels, Hillsboro, N.H. 944.30
Fell—fractured hip

Martin M. Feuer, Atkinson, N.H. 100.00
Struck by tree limb—injured chest

Angie Clark, Plaistow, N.H. 120.00
Auto acc.—injured neck, shoulder & leg

Maurice T. Before, Newport, Vt. 403.22
Kicked by cow—injured knee

Harley Holt, Plainfield, Vt. 323.57
Tractor tipped, thrown off—broke arm

Leonard Camp, Randolph Center, Vt. 524.00
Fell from truck—injured back

Cora Bovat, Charlotte, Vt. 156.75
Slipped & fell downstairs—back injury

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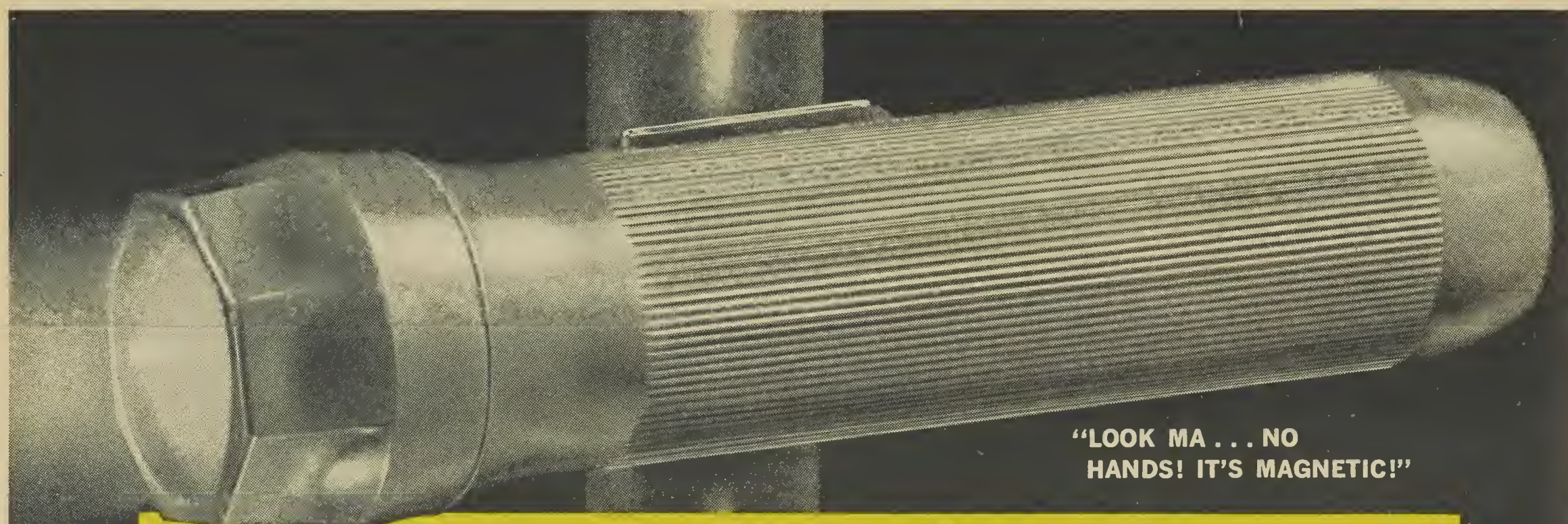
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OCTOBER 1964

American Agriculturist



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Dates to Remember

Oct. 3 - New York Ayrshire Production Sale, Cobleskill, N.Y.

Oct. 4-10 - National Fire Prevention Week.

Oct. 6-8 - NEPPCO Exposition and Convention, Farm Show Building, Harrisburg, Pa.

Oct. 13 - 37th Annual National Convention of Future Farmers of America, Municipal Auditorium, Kansas City, Mo.

Oct. 15-24 - National Apple Week.

Oct. 17-18 - University of Connecticut Annual Horticulture Show, Ratcliffe Hicks Arena, University Campus, Storrs.

Oct. 24 - United Nations Day.

Oct. 24-25 - Agway Stockholders Annual Meeting, Onondaga War Memorial, Syracuse, N.Y.

Oct. 25-Dec. 1 - Gunning season for deer and black bear Adirondack and northern zone counties; for rest of state, Nov. 16 to Dec. 1.

Oct. 26-Nov. 1 - National Honey Week.

Oct. 27-29 - Cornell University Nutrition Conference for Feed Manufacturers, Statler Hilton Hotel, Buffalo, N.Y.

Gordon Conklin, Editor
American Agriculturist
Box 367-M
Ithaca, New York

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Your Tractor

GIVE IT AIR!

by Wes Thomas

EVERY POUND OF gasoline burned in your tractor engine requires fifteen pounds of air. Stated another way, this is 8,000 gallons of air for every gallon of gasoline.

Thus, even a small percentage of dust and dirt in the air can quickly provide enough abrasive action to quickly ruin the inside of your engine. Only proper maintenance and servicing of your air cleaner can prevent all this "sandpaper" from getting loose in the cylinders.

Most air cleaners are composed of two major parts — a screened intake to prevent entry of trash and other large particles, and an oil bath filter to remove the fine particles. In the oil bath cleaner, the air stream flows down through the oil in the cup, back up through a metallic "wool," and on to the carburetor.

The air churns the oil, which mixes with the dirt particles. This oil and dirt mixture is deposited on the "wool." The oil washes the dirt down into the cup, while the cleaned air goes on to the carburetor.

Servicing

Daily servicing. Check the oil cup. If the oil has thickened, or if more than ¼ inch of dirt has collected in the bottom, clean the cup and fill with new oil. While you have the cup removed, also check the lower screen of the filter element. Remove any trash particles that may have collected.

Monthly service. When the oil cup is off, also remove the stack cover and look down through the stack. If dirt has collected on the inner wall, use a stick or a broom handle to ram a cloth through the tube.

Yearly service. Remove the complete air cleaner assembly from the tractor. If the filter element is removable, wash it in kerosene or solvent. If the element is not removable, it can generally be flushed out by pouring solvent through it. If the tractor has been operating in extra dusty conditions, an extra complete cleanup during the season may be necessary.

Each time that the air cleaner is serviced, it's wise to make a thorough check for breaks or leaks in the hose and clamps between the air cleaner and the carburetor. Any air entering here is dirty. A cracked air cleaner hose can admit enough dirty air in a few hours of engine operation to damage an engine so severely that a complete overhaul will be required.

The air intake leading to the air cleaner will have some sort of screen over it to remove the chaff and other big pieces of dirt from the entering air. Keep this screen clean to prevent the choking of the cleaner system.

Overfilling

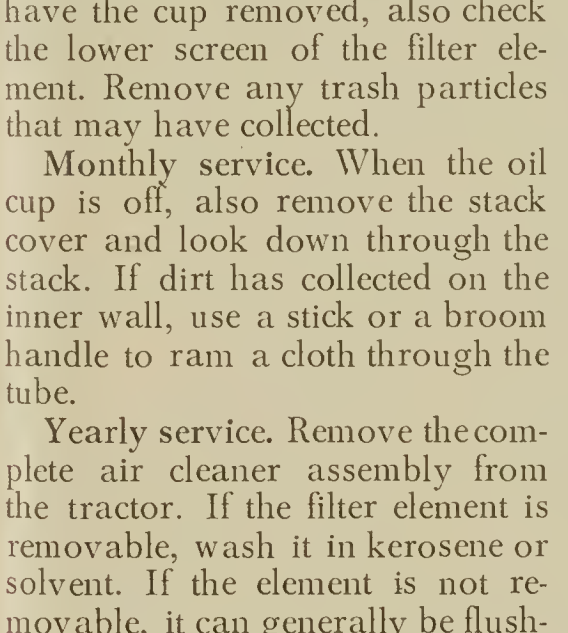
When servicing the air cleaner, do not overfill the oil cup. An excess of oil may allow the air stream to carry over oil to the carburetor. On diesel tractors this carry-over oil may be injected into the cylinders, causing the engine to "run away."

Some tractors are so constructed that an extension can be added to the air intake when operating in dusty conditions. However, it can be very costly to use a "will-fit" extension instead of the one sold by the original tractor manufacturer.

Here's the reason: Air cleaners are tuned much on the same principle as an organ pipe. For each carburetor and engine combination there's a length, diameter, and shape that will allow the most air to enter the carburetor. Any other combination will tend to choke the engine.

The tractor manufacturer finds this best combination by a cut-and-try process during the engine development program. This work requires expensive test equipment to obtain satisfactory results. So, even though an extension made by the original manufacturer may cost a little more, it will soon pay for itself in the amount of fuel saved.

The Song of the Lazy Farmer



Most salesmen beef quite bitterly that they can't sell a thing to me; but just the fact that I don't buy is not what puts red in their eye. What really gets 'em all upset is I act like a first-class bet; I listen with a lot of zeal while they are going through their spiel, I do not make a single sound until each one is all unwound, and then I question him awhile and pretty soon he starts to smile, then opens up his order book because he's sure I'm on the hook. Instead, I say, "That's int'resting, but I don't think I'll buy a thing."

My neighbor, on the other hand, will waste no time but just demand "How much?" and then, if it sounds fine, he signs upon the dotted line. That's foolishness, if you ask me; of course, I'm willing to agree that neighbor's calves are better fed, he never finds a pig that's dead, he plants a better brand of seed, his pullets never get off feed; and though he buys more stuff in sacks, he pays a higher income tax. But still he is a lonely guy because he is so quick to buy; and with so much less visiting, he has more time to work, by jing.



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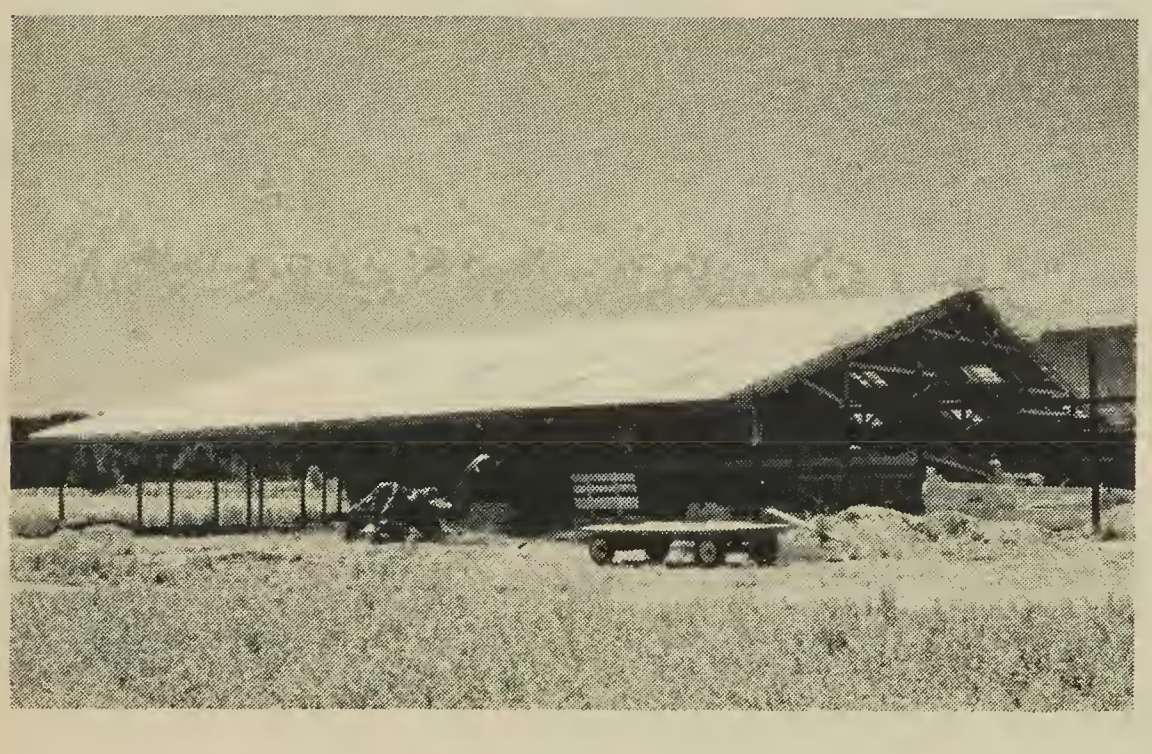
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American Agriculturist

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While driving along the road one day, in the merry, merry month of....Shucks! What rhymes with October? Anyway, the photographer saw these photogenic pumpkins and decided to take a picture of them. By some strange Halloween magic, a lovely lass suddenly appeared and the result . . . a "pumpkin pin-up."

from the HESS & CLARK animal health center

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Now you can use a mastitis treatment that lets you sell milk 24 to 48 hours sooner. Discard milk for only 48 hours after treatment. It's new Medifuran: The first new mastitis drug on the shelf in six years!

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Medifuran is based on a new nitrofuran, furaltadone. It will not promote the build-up of drug-resistant bacteria and is effective against the major types of bacteria that cause most mastitis, including staph organisms.

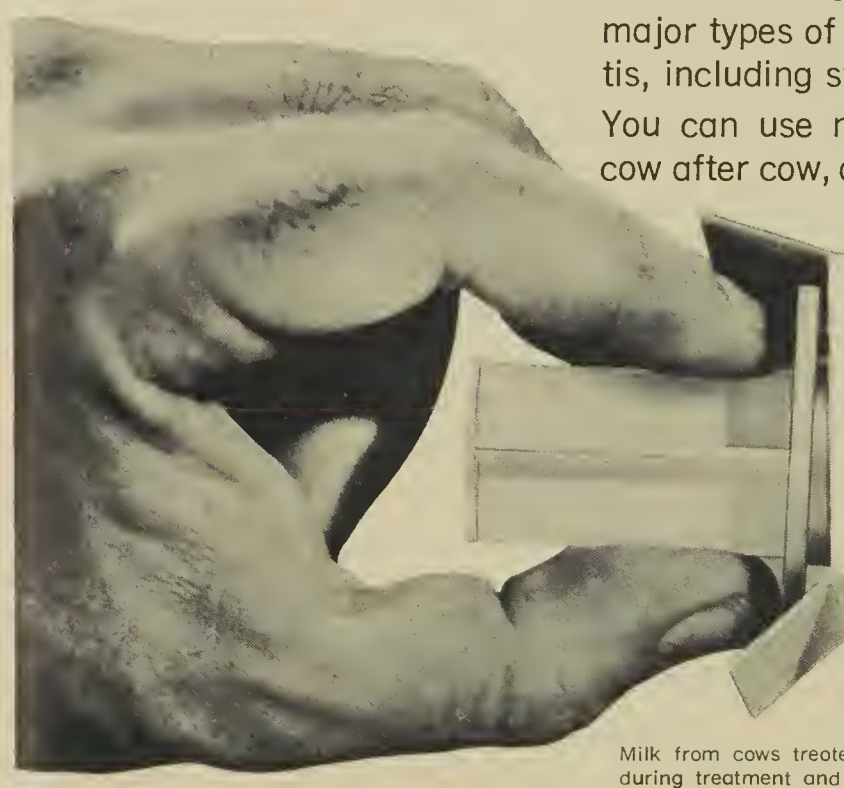
You can use new Medifuran time after time, cow after cow, and continue to get good results.

Important:

New Medifuran lets you start selling milk one to two days sooner. You only discard milk for 48 hours (4 milkings) after treatment. So the extra milk you sell more than pays for the slight extra cost of Medifuran . . . in fact, usually pays for the entire treatment!

Try new Medifuran. It probably comes closest to being the mastitis treatment you've always wanted.

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Medifuran®
FOR MASTITIS

*Contains Valsyn, brand of Furaltodone of the Norwich Pharmacal Co.

Milk from cows treated with Medifuran for mastitis should not be used for food during treatment and for at least 48 hours (4 milkings) after the last treatment.

HESS & CLARK
ASHLAND, OHIO

EDITORIALS

by GORDON CONKLIN



JUST PASSING THROUGH

A very serious thing . . . not funny at all . . . happened to Bobby Kennedy on his way to the White House. He became involved with three ladies, all at the same time.

Miss Bay State he had known all his life; they'd been born and raised in the same neighborhood. He raided the icebox for bread and butter so often, and spent so much time there, that he was considered part of the family, and even voted in what the State family called their Cape Cod Council.

One day, he journeyed to a New Frontier and met Virginia. She was an elderly and elegant Southern lady who offered to rent him a beautiful residence; he decided to accept her generosity. He continued to have close ties to Bay . . . even continued to vote in the Council, but he laughingly admitted to being a "cosmopolitan" because he voted at one place and lived in another.

But then he met an exciting personality . . . Miss Empire State, a distant relative of Bay. Empire was rich in wealth and power, and had a large voting family, offering endless possibilities for furthering a man's career. She invited Bobby to visit soon, so he packed his carpetbag the very next day with diplomas, honorary degrees, and other proofs of his wide experience. Oh yes, he also packed a bulky memo with masses of information on Empire and her family . . . to study carefully so he wouldn't come out with something like, "It's great to be in Onondagar County and see the beautiful Catskills rising above the majestic Allegany River."

The moral of the story is that everyone is useful for something . . . whether butter, billets, or ballots.

VALUE OF DIVERSITY

The last New England Green Pastures Forum was its usual excellent event. One of the discussions involved a panel of five dairymen, each telling of his forage program . . . every one a bit different, ranging all the way from all hay to all silage. The five herds were doing very well in milk production, and the pounds of milk being produced per man on all these farms was far above average.

As the discussion developed, it was obvious that each of these dairymen operated in a situation somewhat different from the others. One lived at a high elevation where corn frosted early in the fall (and sometimes late in the spring); another had a farm in an area where very high land values made it especially important to get every ounce of TDN per acre. There were differences in average capital, in labor force, in soils, topography, climate, milk market, family goals, and other things influencing management decisions.

As I listened, it occurred to me that one of the great strengths of America is the opportunity for diversity. Each of these men was doing his level best to adapt his business to his conditions; no one of them had the "best" system applying to all farms alike. Combined production efficiency on these five farms was undoubtedly far greater than it would have been if all of them were using the same roughage program.

By contrast, Russia's agriculture operates under sweeping directives that may be perfectly adapted to some mythical "average" farm, but never quite fits any single actual farm. The record is clear concerning the results of such an approach in comparison to allowing each farmer to operate his business to fit his situation.

There is a dynamic force, too often underrated, that spins our economic system at a phenomenal pace. It is the management efforts of people who operate in a framework that allows them to size up their situation and do things in the most profitable way for them.

Even in the atomic age, people . . . not atoms . . . possess the most powerful potential. That potential flourishes in a climate of diversity.

HE, SHE . . . OR TREE?

The justices of the Supreme Court have spoken . . . men and women are more important to the political framework of our states than are trees and acres. One person, one vote is the way it's gotta be, and it is henceforth illegal for states to apportion representation on any other basis than population. Interestingly enough, the Constitution obviously makes it mandatory at the federal level to continue allocation of senatorial representation on some basis other than population. The Supreme Court specifically forbids in state governments what it must specifically defend in the federal government.

Now when all the emotion is wrung out of the crying towels, the basic questions stand out sharp and clear. Is there something intrinsically different about rural living and rural people that deserves greater weighting in the fabric of our society than sheer numbers alone would justify? Are there certain virtues, moral values, or ethical principles that flourish more fully in the rural atmosphere as compared to the cities and suburbs? If yes, then we'd better preserve them. If no, then what's all the hullabaloo about?

Let's look at some of the possible answers to the first question. Rural people, it's argued, are of necessity more self-reliant. Their first reaction when confronted with a problem is to tackle it with their own resources if possible, rather than call the policeman (neighboring couple fighting), the fireman (family cat up a tree), the game warden (coon in the corn), the fumigator (ants in the basement).

Further, farmers are believed by some to be more flexible in adapting to change. Consider that output per man in agriculture has risen more rapidly in the last decade than it has in industry. The fireman still rides the railroads even though a procession of presidential and congressional commissions agree he is superfluous. Make no mistake, society as a whole pays for the feathers in that bed, and yet the railroad labor unions successfully defy the rest of society to make changes in work rules based on conditions fifty years ago. Agriculture also has some areas of paralyzing regulation and subsidized protection, but the phenomenal increase in general level of productivity per man marks farmers as sensitive to the winds of change, and perhaps more progressively oriented, than some of the rigidly-organized labor groups in urban areas.

People who own property are somehow steadier than those who "have nothing to lose but their dinner pail." Those outside the huge centers of population, in contrast to the cliff dwellers of the asphalt jungles, own their homes and the land across the countryside. They have a large stake involved in a particular area, and have roots that form a more solid foundation for cool judgment than does a key to a rented apartment in a housing development.

The man on an assembly line in the huge factories of our cities feels little sense of accomplishment. He stands all day long and puts one particular bolt into the assembly, with no vision of how the finished product serves mankind. Sociologists deplore this aspect of mass production, and point to the frustration it brings to large groups of urban people. By contrast, it is claimed that farmers have a more constructive attitude toward their profession, partly because they know the satisfaction of accomplishment in a wide range of skills . . . a satisfaction denied many of their urban counterparts.

Finally, those of more esthetic bent say that people outside big cities have closer contact with nature and all that implies of the values of contemplation, of sensitivity to the rhythm of the universe, and the opportunities for spiritual insight amidst the wind's whisper that is drowned by blatant auto horns along city expressways.

Why, it is asked, are women attacked in large cities while onlookers make no move to help? How is it that the police there are stoned and taunted? Is not the spirit of neighborliness and helpfulness still a much more vital force outside the urban areas?

Somehow, I've got a hunch that the founding fathers had a good idea when they devised the Senate as a check and balance within the Congress, which is itself part of a check and balance system of legislative, judicial, and executive branches of government. The Supreme Court seems to think it has found "pure democracy" in the Constitution, but I question whether that is what its framers intended. They could have chosen to have Congress elected solely on the basis of population, but specifically chose otherwise.

I'm not one of those who believes our nation will come apart at the seams the following year if the Supreme Court decision stands; I've seen too much of human resourcefulness and flexibility, too many instances of changing a course of action if it proved undesirable. But I'll go on record as opposing the Court decision and in favor of allowing states to allocate representation, preferably in one house of a bicameral legislature, on some basis other than population.

And as for those trees about which Chief Justice Warren spoke so disparagingly . . . who knows? Maybe someday they will inherit the earth.

HELP FOR DROUGHT

I'm all for a higher blend milk price for dairymen and only wish it could come about because of increasing demand and a higher utilization of the total pool as Class I (fluid) milk. The need for help because of the drought is spotty over the Northeast, but there were some areas so dry all summer long that farmers had to put shaving lather on the hay before it could be cut.

When it comes to helping dairymen weather the storm . . . or lack of storm this year . . . I'd like to promote greater emphasis on moving surplus corn through commercial channels at a bargain price. Did you know that, on July 1, 1964, in this nation there were 55,000,000 bushels of 1959 corn under the re-seal program, whereby farmers can choose to continue storage under a loan program, getting 14 cents a bushel a year for storage?

On that same date, the re-seal program of on-the-farm storage showed 109 million bushels of 1960 corn, 120 million of 1961, 137 million of 1962, and 309 million of 1963 corn. In addition, CCC owned 749 million bushels of corn in its owned and leased storage facilities.

Seems to me we could kill two birds with one stone to make a sizable chunk of that 1959 and 1960 corn available to dairymen who went through the wringer . . . or dryer . . . last summer and are short of feed. This help would go primarily to those who need it most, even though it would at the same time tighten down the competitive thumbscrews on some of the top farmers who have to produce milk from relatively more expensive feed.

American Agriculturist, October, 1964

it wasn't easy...

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4. TOP CALF CONDITION Smoother, glossier hair coats were noted in New Calfnip Research feeding.

5. EASY TO FEED New Calfnip mixes easily, stays in suspension. Feeds smoothly and cleanly through nipple.

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Try new, improved Wayne Calfnip. You'll be amazed at the results this research developed formula delivers. See your Wayne dealer for more details . . . soon!

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Ed Briggs likes his free stall setup. Note channel irons used to hold end of plank above rear curb.

FREE STALL SETUP

Our loose housing barn burned on November 5, 1963. We built a free stall barn with 62 stalls; the storage and feeding area is 40′ x 80′ and the eight-stall herringbone parlor and milkhouse adds 40′ x 20′.

The hay storage is in the middle of the barn, with the weight of bales carried on the ground. The 64-foot-long hay feeding area is along the base of the storage area. It is a "cold barn" and we've had no serious problem with moisture condensation on the steel roofing.

Wood chips two feet deep are used in the stalls, which are seven feet from the front of the rear curb to the front of the stall; each is four feet wide. Our figures show cost of plank and steel to be four dollars per stall. Cows have kept surprisingly clean in this arrangement. I believe that one man with a little part-time summer help could handle 50 cows with this type barn.

This setup tends to lead us in the direction of feeding all cows the same rather than allowing for individual differences. The more aggressive cows being milked in a herringbone parlor will sometimes raise Cain if we try to cut their grain down. Such a cow will start bunting other cows that are still eating, and in general make such a nuisance of herself that we feed her more just to hold her still until she's milked.

Since I'm a Curtiss AI technician I'm away quite a bit, and so have a full-time hired man. We hire our heifers raised on contract, paying a neighbor a fixed price. We supply the calf, arrange to have them bred when they're about 850 pounds in weight. He does a good job of raising them, and I figure it's a good deal for both of us. — Edwin Briggs, Wayland, New York

Personal Farm Experience

The items on this page all come from the firing line of farm production.

CUTS NEW SEEDING

In a program to cut unit costs, I have been stepping up crop yields and milk production.

I use about 50 tons of lime a year on 93 acres (50 acres tillable), and also use commercial fertilizer liberally. Corn gets 600 to 700 lbs. per acre, and 0-20-20 goes on meadows every year.



Dick Hauth

I cut down on reseeding by growing corn after corn for three years. I hire the weed spraying to cut labor and also equipment costs.

In 1963 I was able to get two cuttings of alfalfa from a piece of new seeding after the oats were cut. The oats were seeded 5 pecks to the acre, cut early, and put in the silo. A good crop of hay was also cut from this field the following June!

I use top AI sires and this, along with better feeding, has increased the herd average from 8,000 lbs. in 1953 to 15,000 lbs. at present.

In the past few years I have bought quite a bit of equipment, including a bale thrower, a mow conveyor, a hay drier, a gutter cleaner, and a bulk tank. Now I am considering a dumping station and a silo unloader. The equipment isn't so much to cut costs as to permit me to work fewer hours. This is essentially a one-man farm, with 50 Holstein cows (33 milkers) — but I decided that a man should be able to spend some time with his family.

It appears to me that management is the most important part of dairying. For example, it's important to turn the cows out every day in the winter and watch them for 15 minutes. Management decisions are simpler, because each cow has a full record on file of what she has produced and any trouble she has had. — Dick Hauth, Boston, N. Y.

PASTURE IMPORTANT

I know that many dairymen are depending less and less on pastures. I feed second-cutting alfalfa and silage in summer, but I also have good pasture and the cows get a lot of feed from it.

I try to clip the pasture when it gets ahead of the cows, and find that they eat less hay and seem less interested in grain than when they are not on pasture. It's important to keep a good cow full all the time. I am not a heavy grain feeder, and seldom give a cow more than 17 pounds of grain a day.

Nine years ago my barn burned. I had done some remodeling to provide bigger stalls for bigger cows — and I really made them bigger when I built the new barn.

I keep registered Holsteins, and average production has been creeping up steadily. In addition to more comfort and less udder trouble in bigger stalls, I give credit to better milking, a practice in which my veterinarian helped a lot.

I add to gross income by selling a few heifers when they are about ready to freshen. My brother Roland owns the farm next to me, and he and I work together some, and cut equipment costs that way. For example, we each own a self-unloading wagon and use both of them on each farm. — Robert Edwards, Delevan, N. Y.

ROADSIDE MARKET

We grow around 100 acres of vegetable crops and sell most of them at our roadside stand. Over the past 10 years we have doubled our acreage; sweet corn has grown most rapidly in volume sold (50 acres this year). People know that they can't get top-quality corn unless it is freshly picked. We never carry corn overnight, pick it five times a day so it's always fresh. Gold Cup is our main season variety.

Our wives have the major responsibility for running the stand. There is a sign right at the farmstead calling attention to the stand, but none farther up the road. We don't like a lot of signs, and the fact that we've been here 27 years has pretty well acquainted people with us. The stand is open from July 15 to Halloween.

Our experiences with buying vegetables haven't been very satisfactory, so except for rare instances when we buy sweet corn, we sell only what we grow. This means, of course, that we don't have fruit, berries, and many other things at our stand. We have even been out of sweet corn entirely on a few occasions when demand was especially heavy.

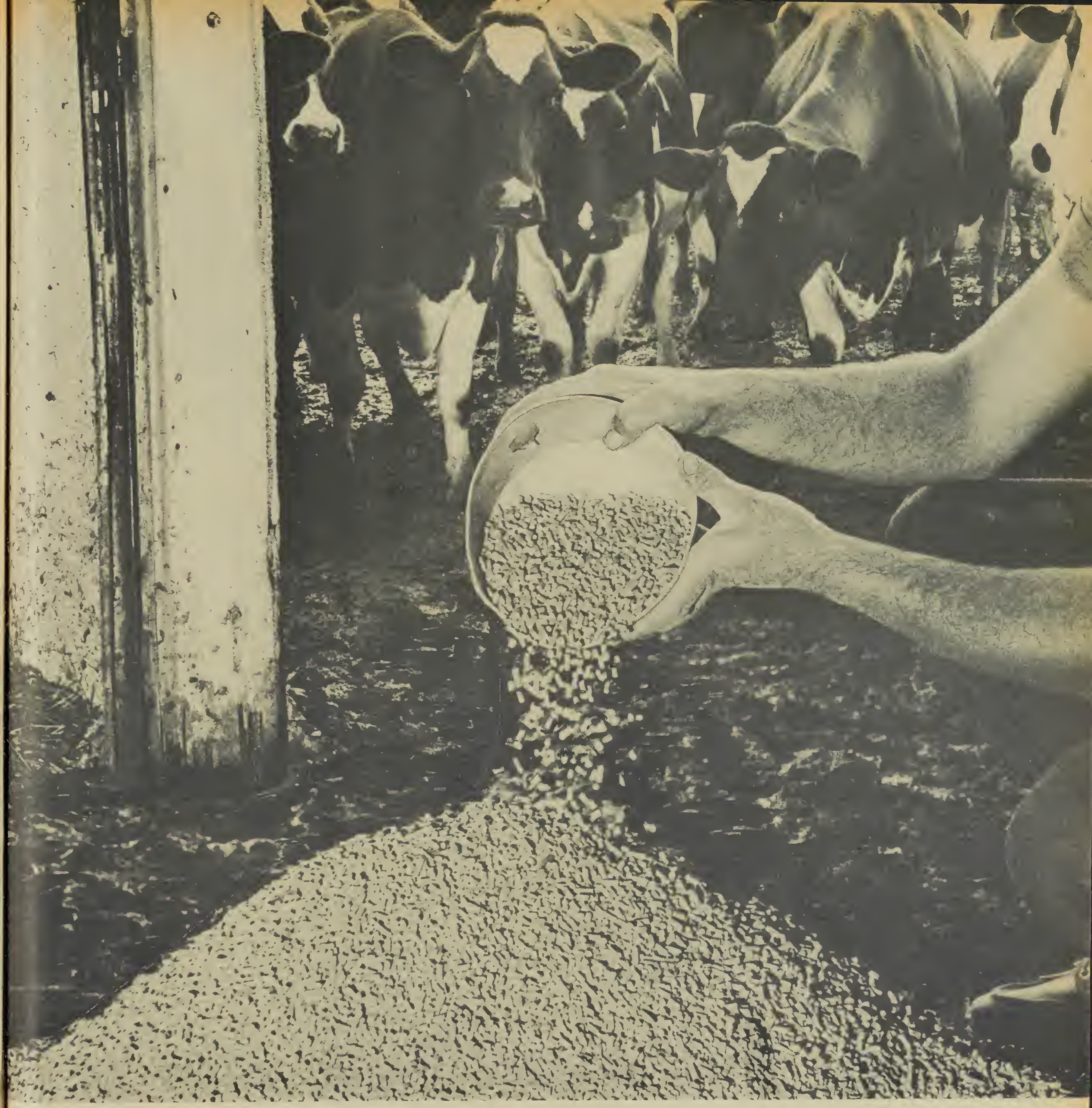
When demand is slow, we sometimes run "specials" to clean up a crop, but have a minimum price of 35 cents a dozen for sweet corn. Asparagus sells well at the stand, and we set a new bed this year even though asparagus acreage is reported to be declining in the area generally. Cantaloupes (7 acres this year) are also excellent money-makers.

We've sold off some frontage acreage for home building, but get along well with our neighbors. We figure there should be no problem if everyone uses a little common sense and doesn't go around with a chip on his shoulder.

Quality produce is the secret of a successful roadside stand. With this, a market gardener can do pretty well. — Francis and Bernard Schurr, Rochester, New York



Ed Motsenbocker, Associate County Agricultural Agent in Monroe County, demonstrates the advantages of clear plastic (left) over black plastic on tomatoes at the Schurr farm. Soil warms up more under clear plastic.



the new Agway:

How this herd lifted profits $3,000 in one year through Agway profit feeding

Archie Winton, Sinclairville, N. Y., put the pressure on his 40 Holsteins last year . . . enrolled the herd in Agway's Profit Feeding Plan. Their average jumped 3073 lbs.

The net profit went up $3000.

Winton switched from grist to Agway #1600-16 Milkerpels. "And my cows clean up this high energy pellet in a hurry.— They wait at the barn door now to be let in to get at it."

The herd also went on the PFP recommendation of challenge feeding during early lactation. "They peaked high, and went right on at a high level the rest of the year."

Winton had been **underfeeding** — on energy. "With PFP I got the energy up and the cows responded with 142,087 pounds more milk . . . and a $3000 increase in net profits."

Over 9000 dairymen have enrolled 400,000 cows in PFP. DHIA records show that 9 out of 10 profit-fed cows make significant gains in production.

That's why we'd like you to call us today, get the details on this simplified management plan, and begin right now to make 1965 your biggest profit-making year.

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Created from Eastern States and GLF

DAIRY FEEDS & SERVICES

The RAIN MAKERS

BY GORDON CONKLIN

Extra water from irrigation provides the key to top potato quality and yields.



Skip Wrobel (left) and Vyron Chapman prepare irrigation pipe for transport to the field.

During July and August, the deep-throated sound of big engines powering irrigation pumps throbs through the day — and often all through the night — at the Wrobel and Chapman farm near Bridgewater, New York. It's music to the ears of Skip Wrobel and his partner, Vyron Chapman, for they know it means that their 340 acres of potatoes will yield their usual average of 600 to 650 bushels per acre when digging time rolls around.

Some fields yield higher — Extension agent John Vaughn, who works with vegetable growers in Madison and Oneida counties, reports checking a field last year that made 725 bushels of Russet Burbanks per acre. "Yields would be far lower without irrigation," John says.

Major Varieties

Sebago is the main variety on this farm, with Chippewa second; Russet Burbanks were planted on only 30 acres in 1964. But the Russets are more important than their acreage might indicate, for this variety is the "Idaho Baker" that so many people believe to be extra-specially good tasting. Skip has been growing Russet Burbank — and learning about its peculiarities — for three years.

It's a spud that requires more water than most other varieties; if it doesn't get a drink at critical times in its growing process, it becomes so knobby that a large proportion of the crop is unsalable. There is evidence that keeping soil temperatures down is the real secret to prevention of knobbiness; irrigation keeps the ground cooler as well as wetter. Skip says, "The first summer we grew them was cooler than the second year and they were much better shaped that first year."

It's also a variety that requires seed pieces to be spaced farther apart in the row — 15" for Russets and 7.5" for most other varieties. Perhaps because of its tremendous vine size, Russet seems more susceptible to blight than the Sebago. The tubers of "the baker" cluster in a group rather than spreading out. But all its foibles are forgiven at the marketplace, for demand is strong for the Russet with its high specific gravity and superb baking qualities. After all, think of the people you know who are forgiven all sorts of weaknesses as long as they deliver the goods!

Yield And Quality

Irrigation, though, involves more than just keeping the knobs off the Russets — all but 60 of those 340 acres of potatoes were hosed down this year. Skip believes Chippewas are less susceptible to scab if they have enough water, especially when tubers are being set by the plant. "Every field should get 1 1/2 inches of water a week to keep potatoes growing good," Skip says. Usually, though, two inches of artificial rain are put on at one setting of the nozzles and at best each field gets extra water only every 10 days with present equipment.

Skip and Vyron use the "giant" nozzles, applying those two inches of water in less than two hours under ideal conditions. There are many variables affecting the radius of the area covered by each "giant," but at maximum pressure close to the pumps a three acre area is covered by two nozzles. However, enough overlapping is done so two nozzles actually cover nearer 1.5 acres at each setting.

A spacing of 180 feet between the two nozzles is common, but this varies according to wind conditions, distance from pumps, etc. Each of the three pumps has four nozzles associated with it — two nozzles spraying water and two being moved and set up at a new location. Ease of moving, by the way, is one of the big advantages the "giants" have over using smaller spray nozzles as with some irrigation rigs. Nearly two miles of pipe (most of it 6") are required.

Two of the pumps are "package" portable units powered by Chrysler V-8 engines with 120 H.P. each. The third pump is powered by a big diesel farm tractor, and Skip comments: "We never operate this one unless a man is right nearby to check occasionally on oil pressure and engine temperature."

Two-Man Team

It takes two men to operate each pumping setup, but the six men sometimes work together rather than splitting up in three teams of two each. At times when the brassy sky has offered no natural rain for days on end, the pumps operate around the clock on two twelve hour shifts. "In fact," Skip says, "unless we get a lot of rain we stick to our irrigation schedule rain or shine — we sometimes irrigate right through a rain."

It's obvious to any spud grower that the irrigation schedule and the spray schedule have to be coordinated. If fields are soggy from two inches of water, a high-pressure sprayer and tractor would sink in pretty badly. Also, coming around with extra water immediately after spraying for bugs and disease would wash off spray material. Generally, irrigation follows spraying by at least two days.

Many Ponds

Water for spray and irrigation comes from ponds and a stream — the stream sometimes supplemented by water pumped from ponds. Ponds dug into the gravelly loam soils fill with water from the permanent water table, offering ideal conditions for irrigating. Suction lines are dropped into old oil drums set in the ponds, with holes through the sides to filter out trash.

When it comes to other crop-growing practices, Skip and Vyron exhibit the same ingenuity as with the irrigation setup. Minimum tillage is the rule; the plows are set for a depth of 10" to 12", and a spike tooth harrow is drawn behind them. No other tillage is done before the two-row potato planters come in (plans are underway to get a four-row planter).

Planting began on April 27 in 1964 and ended on May 21. For early planting B's are used, because this seed isn't split and there is less danger of rotting in a cold soil. After soil warms up, they go to splitters that have been dusted with captan.

Bulk Fertilizer

Fertilizer applied at the rate of 1,800 pounds of 8-16-16 per acre is handled in bulk from storage right on the farm. A one-yard bucket on the front end of an industrial-type fork lift puts fertilizer into a truck, from which it's augered into the planter — untouched by human hands! Three percent magnesium is added to all potato fertilizer used. Natural soil

(Continued on page 31)



Here's a better way to make rain than Indian dances, cloud seedings, or just wishing! Vyron Chapman (left) and Skip Wrobel have two irrigation pump units like this one.

DISTRICT MEETINGS

Dates for the annual district meetings of the American Dairy Association and Dairy Council of New York are as follows:

October 5: District 3, Riverside Hotel, Ellenburg Depot, N. Y.; October 6: District 2, Grange Hall, Calcium, N. Y.; October 7: District 13, Castle Hall, Oneida Castle, N. Y.; October 8: District 1, Masonic Temple, Canton, N. Y.

October 12: District 4, Shenandahowa Central School, Clifton Park, N. Y.; October 13. District 5, Sharon Springs, N. Y.; October 16: District 14, Central School, Arkport, N. Y.

October 20: District 15, Ross Grange Hall, Falconer, N. Y.; October 21: District 11, Candor, N. Y., Central School; October 22: District 16, Grange Hall, Mansfield, Pa.; October 27: District 17, Fire Hall, Clifford, Pa.; October 28: District 10, Farm and Home Center, Norwich, N. Y.

November 5: Districts 18 and 19, joint meeting in Harrisburg, Pa.; November 6: District 6, Farm and Home Center, Middletown, N. Y.; and District 7, Farm and Home Center, Flemington, N. J.; November 9: District 12, Grange Hall, Baldwinsville, N. Y.

Franchise — Agway Inc. has been granted an exclusive franchise to use the Agri-Lease trademark of the Rochester Capital Leasing Corporation. Under the program, Rochester Capital Leasing Corporation (which developed Agri-Lease to provide qualified farmers with 100 percent long-term financing on barns, silos, poultry and hog houses, machinery, and other farm needs) will buy equipment and buildings from Agway and lease them to farmers on long-term lease. The franchise applies to the New England and Mid-Atlantic states.

Materials Handling Exhibition — Officials of the utility companies sponsoring the recent Materials Handling Exhibition at the Humphrey Farm near New Hartford report that 20,000 people attended the two-day event. The ten acres of exhibit space accommodated 80 exhibitors, the products of 172 manufacturers, and $1,100,000 worth of equipment.

Jared Van Wagenen Hall — The new addition to the Witter Agricultural Museum at the New York State Exposition honors the memory of a man who was intensely interested in the history and folklore of his State. Jared was instrumental in establishing the museum, which was the fulfillment of his longheld dreams. It is open the year around.

Presidential "E" — Babcock Poultry Farm, Ithaca, New York recently was the scene of a giant poultry industry barbecue attended by over 3,000 poultry industrymen and their families. During the ceremonies Assistant Secretary of Agriculture John Baker presented to the firm an "E" citation for its outstanding success in building foreign markets for poultry breeding stock.



Researchers and scientists at the New York State College of Agriculture are working with farmers and the Pepsi-Cola Company in an effort to find the right combination of "ingredients" to make sugar beet production as successful as possible in New York State. Pictured above are agriculturists of the Empire State Sugar Company, Inc. (a subsidiary of Pepsi-Cola Company) who will assist growers in producing sugar beets in an eight-county area: Left to right: Director of Agriculture Mark R. Berrett; Gary Howard (Wayne, Cayuga and Oswego counties); Charles Ingram (Yates and Ontario); Nathan Herendeen (Wayne and Ontario); Vivian DiSanto (Cayuga and Tompkins); Harold Orchard (Cayuga); George Allhusen (Cayuga); John Rathbun (Seneca); Jay Swenson, research agronomist; and Sheldon Jayne (Cayuga and Onondaga). Empire State Sugar is building a $22 million beet-cane refinery in Montezuma, Cayuga County; opening is scheduled for October, 1965.

Next time you feel wistful about your lost youth, just think about algebra. — Gilcrafter



After dark, Farmer Gaines had barnyard problems. He couldn't finish last-minute chores. He was bothered by strays [dogs and otherwise]. He stumbled over things. He couldn't even pitch horseshoes.

Then Farmer Gaines saw the light.

The light Farmer Gaines saw was from his new mercury-vapor dusk-to-dawn light that has literally changed his barnyard from night into day. And look how he benefits: He gets *extra time* for late-evening chores, combining, harvesting and recreation. He gets *extra security* from prowlers, strays and wild animals. He gets *extra safety* because outdoor lighting greatly reduces the risk of accidents...no more stumbling over things in the dark. He gets *extra convenience* because the light turns on automatically at dusk and off at dawn. Even when he's away, his mercury-vapor light works to protect his family and property.

Find out how to rent your dusk-to-dawn light for as low as $3.95. Simply call your local Niagara Mohawk office. You'll soon be seeing the light, too.

NIAGARA MOHAWK

INVESTOR OWNED–TAXPAYING



Gayway Farm Notes

by HAROLD HAWLEY

BLOSSOM TIME

The span between blossom and seed time or harvest naturally varies all over the place depending on what plants are being considered. Within a reasonable range of error, the time a corn plant tassels pretty well establishes when it will bear mature grain. Likewise, apple blossom time (what a romantic phrase) and apple eating time bear a fairly constant relationship to each other.

With alfalfa and clover we seldom think about the time lag between blossom and seed time, as combining seed from these plants is primarily for those who specialize in seed production in the irrigated valleys of the West. However, it is likewise true that from blossom to combining time is a more or less regular interval.

Shortened Time

Was the time when we tried to get started haying before blossoming was completed and were at it for a long spell thereafter. Then came the trend toward earlier haying and ensiling, and we heard more about starting when a field was half blossomed. Now it's common to hear someone talk about starting to cut (whether for hay, haylage, or greenchop) when the first blossoms show. Thus we have seen a real shortening in the timing from blossom to seed time.

This earlier cutting is one of the real steps forward in quality feed and high milk production. There is no question about earlier cutting making possible an extra crop of hay each year. Wish someone would figure out the stage of maturity for maximum return per acre of hay — counting yield of TDN, quality, palatability, and percentage of protein.

Some of this early bud stage alfalfa looks to be so high in moisture that it seems questionable whether there is a net gain from cutting it so soon; tons of dry matter are what we really need to keep in mind. Sometimes I think the situation with alfalfa is the same as with silo corn. Cut too soon it makes a lot of green sloppy feed; cut later, the dry matter content is much greater and this means the silo is holding more real feed and less green water. For years this has been recognized with corn but it's not so well recognized with grass.

A Lot of Fertilizer

Obviously, if we are to get the most from our seedings with early cutting we must use a lot of fertilizer. We had an interesting experience in this connection. Last year's application of fertilizer on our hay fields (300 lbs. of 5-20-20) didn't have a real chance to show results because of the dry year. This spring, growth started out fast because of lots of available plant food left over, and our second crop was surprisingly good considering our shortage of rain. Generally speaking, I'm not much sold on trying to store fertility in the soil for next year; it certainly seems better to feed as needed. However, in this instance, entirely unplanned, we got big returns for fertility carried over.

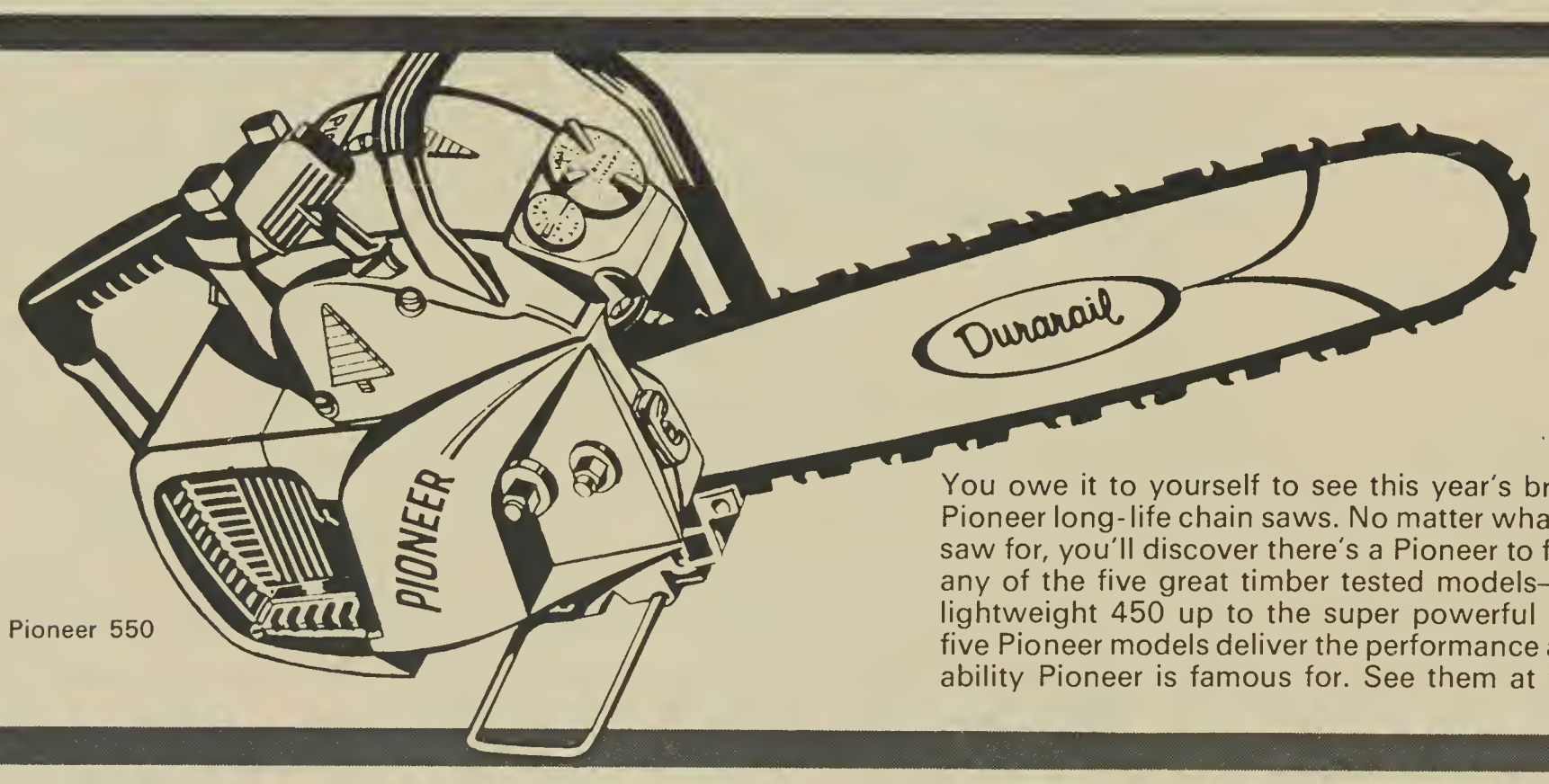
What really got me started thinking about this blossom business was the unusual appearance of alfalfa fields in our area this summer when they came into bloom prior to the second cutting. Perhaps the dry weather can take the credit. The usual growth of grass was absent, leaving clear stands of alfalfa. Never have I seen fields look so like a solid purple blanket was laid on them. I suppose hot dry weather is ideal for seed production, and the blossoms surely were thick and plentiful enough to have insured a tremendous seed set if the hay had been left standing. One evening in particular, just at sunset a field was so beautiful that I began to wonder if we have been overlooking a possible use for alfalfa. No rose garden could have been more lovely. Some plant breeder with imagination could select for large blossoms, and soon we could be in the position of growing a two-way crop. Cut it early for the cows . . . cut it at full bloom to delight the eye and rejuvenate the spirit.

GREENCHOPPING

We filled a silo with haylage in June, expecting that our new barn would be ready in early August. We planned to feed corn silage as long as it lasted, then feed the haylage as our main summer roughage along with some hay, pasture, and grain. The barn not being done then, we have been greenchopping alfalfa each day — and we don't like it! The cows like the feed and are doing fine on it, but we feel it's pretty wasteful of time to chop our feed one load at a time. We could get a lot more feed made for every hour of work if we could go at it for 3 to 4 days and then forget it. With this greenchop program we have to get a tractor home every night. We've been plowing and fitting for winter wheat and barley four miles from home and this makes extra mileage for a tractor. Then hitching and unhitching from a rig every day for a few minutes use is an additional headache.

Our forage harvester, like so many other machines (balers, pull-type combines) is heavy on the

(Continued on next page)



Pioneer 550

You owe it to yourself to see this year's brand new line-up of Pioneer long-life chain saws. No matter what you use your chain saw for, you'll discover there's a Pioneer to fit every job. Choose any of the five great timber tested models—from the compact, lightweight 450 up to the super powerful 850 Gear Drive. All five Pioneer models deliver the performance and rugged dependability Pioneer is famous for. See them at your dealer's today.

See your Pioneer Dealer; select your lucky key in the

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EVERYBODY'S A WINNER! Just come in where you see the window banner and select your lucky key from the Golden Key Promotion Chest...and take your prize home with you. If you can't come in, send your name and address to your nearest Pioneer dealer. Your key will then be entered in the drawing for the Grand Prize and the big Second Prize.

GRAND PRIZE—16-ft. Evinrude Boat with 88 HP Stern Drive Engine Complete with Trailer.

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200 PRIZES at each dealership—8-piece fishing kits with rod and reel • One to three dollar free service certificates • 22-piece Fishing Lure Sets with carrying cases • Johnson & Johnson first aid travel kits • Fresh water fishing guides.

hitch and equipped with one of the most unsatisfactory jacks of all time. This further adds to our displeasure. I'm hereby going on record as being willing to pay extra for any new machine we buy if it can be equipped with a satisfactory-type jack. I'm sure there are such — I've just never seen one, much less owned one.

SUDAX

One of the successful new crops of recent years seems to be Sudax. Without much fanfare or promotion it has won itself a spot on many farms as a summer "greenchop" forage or as pasture. When we got no rain in June several fields we were watching failed to germinate well or to grow much, but these took off when we got a little moisture relief in July. Early plantings seem to have got well started and have made a lot of growth and feed. If we were sold on daily chopping, this crop would be a part of our program. I'm not so sure it couldn't have a place as a source of haylage.

RYE STRAW

A second relatively new crop which seems to fit in to some farm programs is rye — to be grown for the straw. The tonnage can be pretty high (up to 4 tons) and the price for top rye straw for race track use is well above that for wheat straw. Of course, there is no quota on acreage. The procedure seems to be to cut and windrow the stuff before the heads fill, let it lay and bleach for several days, then bale it up and sell it.

We are anxious to find someone who has seeded in this rye crop in the spring. We hope to find a crop we can take off a little earlier than wheat. Our expectation would be to get the straw off in June, fertilize, and then take a crop of hay from the new seeding in late August or early September. Has anybody done this?

(Editor's Note: If you want to write the author, send your letter to Harold Hawley, Weedsport, New York.)

TEASELS

Remember the lowly teasel? In case it is not part of the flora of your area, it is a spiny plant looking like a transplant from some cactus-sprouting desert. It was (or at least the heads from it) used to comb flax in the dim past. Some time ago it was cultivated in this area and the plant still persists as a weed, especially in damp spots not clipped. For many years there have been plants along a creek through our pasture.

Now that we have largely eliminated this plant (or weed), we occasionally see it in someone's living room! In winter a dozen or fifteen of these spiny heads with their long stems arranged in a tall vase make an attractive bouquet. We have seen them sprayed with silvery paint . . . and many other colors, too.

Who knows but what there may yet be a demand for these once useful plants? How ironic to fight a weed all your life and then to have some lady see the possibilities and make a tidy sum from it!

VACATIONS

We are firm believers in vacations for man and beast. This year we have intentionally taken none because of our preoccupation with barn building. We will probably conclude this was a mistake. There is something about getting away for a while that does for one's mind, soul, and body that nothing else can do.

All but farmers have long since regarded two week vacations as a minimum need. More and more farm people are joining the parade — to the mountains and highways, to the seashore, to the relatives, to the camping grounds, across the land, etc. This is all to the good.

Admittedly it is hard for livestock farmers to get away. Dairymen have no corner on this. A good hog man or a good cattle feeder have equal reluctance and difficulty in leaving their charges. Some folks come up with unique arrangements in order to get their vacations. The Farley brothers on nearby farms near Leland, Illinois, work out a rather complicated schedule to oversee each other's farms for a couple of weeks. The complications are due to the need (or desire) to schedule vacations at times when little pigs aren't due to arrive, or when various immunization shots aren't due. It takes some planning, but they get it done.

We know a cattle feeder who schedules his vacation right after he sells his fat cattle and before he puts in his next bunch of feeders. It may not always be when he and his family would prefer to go, but it's the best time for them to get away.

While there is always something to be done, those who keep no livestock can pick an off-season time when they can most easily take a few days. It takes a little extra planning where the cows are concerned even if there is hired help, but it can (and should) be done.

We've arrived at the point where we regard any extra troubles and loss which occur at home while we are away as just another cost of the vacation. Even though this runs up the bill sometimes, no cost is really too high if it helps maintain one's mental and physical health and enlarges one's spiritual dimensions. The memories of family fun and togetherness couldn't have been achieved any other way. Having passed the experience for this year, we are already planning next year's trip west. Hope you are all taking a "breather" this summer which will make it easier to maintain perspective all the rest of the year.



"My wife worships me," George told the office staff.

"Oh, is that so?" a stenographer asked.

"Yeah! She places burnt offerings before me every morning!"

Read what cutters say about

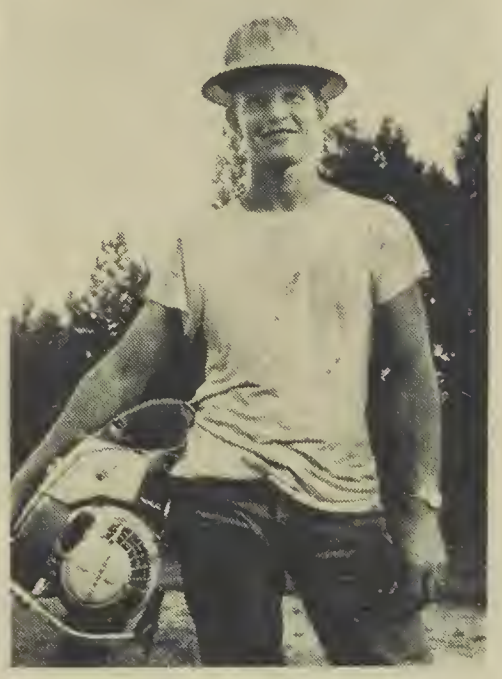
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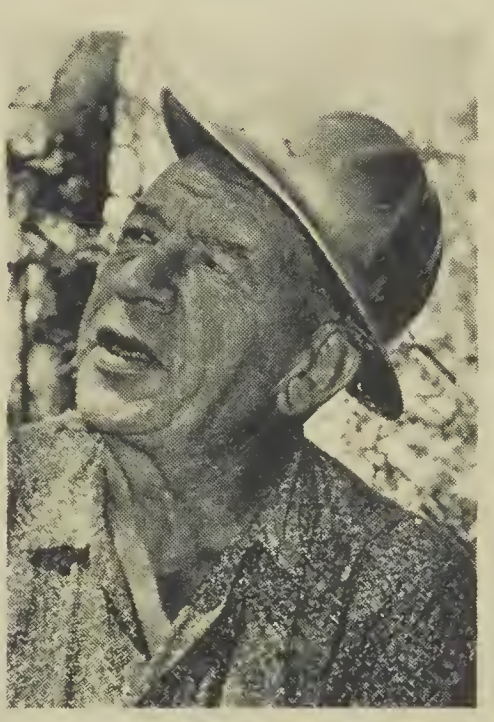
Robert Shamion, Iron River, Michigan
"The 450 is the finest limb trimmer I've ever had. Clean up is easy with the 450 Pioneer."



Rudy Soders, Coos Bay, Oregon
"My rugged Pioneer Model 850 has the power to tackle any timber in the woods. Starts easy, too."



J. D. Blackwell, Strong, Arkansas
"The Pioneer 750 has made the difference between making a profit and losing money. The Pioneer is as good a saw as you can buy, but it costs less—and parts cost less, too!"



Jess L. Barr, Portland, Oregon
"I like the Pioneer Chain Saw on account of easy starting and very little upkeep. In fact, I have run my Pioneer 750 for 360 hours and have only changed one plug since I bought it."

PIONEER CHAIN SAWS

Outboard Marine Corporation, Galesburg, Ill.

NEW! Ask your distributor about the amazing new PIONEER safety chain *Sureguard*™—the chain that cuts down on kickback.

by the makers of Johnson and Evinrude Outboard Motors



FREE STALL HOUSING

I read the recent article on free stall housing by the Dutchess County agent and he reminds me of my neighbors who used to say that horses were cheaper than tractors and horses would never be replaced by them. The ones who wouldn't change soon got left behind! I predict that dairymen who persist in milking their cows in stanchions will soon be looking for some other way to earn a decent living.

I have just been through my second winter with free stalls in one end of my barn and stanchions in the other. There is no comparison in either cost or labor efficiency between the two systems. But any dairyman who spends $400 per cow for free stall housing alone (as the author says) has more dollars than sense.

With free stalls there is no expensive barn cleaner to buy and maintain, no stanchions or water buckets, and no pipe line. The cows keep cleaner with less bedding than in stanchions. It takes two man-hours per week to remove the manure from 32 free stalls. There is no whitewashing to pay for, no cows' feet to keep trimmed, and in two winters I have not had a single teat injury.

There is absolutely no reason for building a cold barn for cows big enough for an airplane hangar. It takes only 24 feet for two rows of free stalls with an alley between, and both the cows and the dairyman are more comfortable in a reasonably warm barn.

If Mr. Rollins would just try milking 80 cows alone in a stanchion barn and then milk the same number in a parlor connected to a free stall barn, he would have the answer to the questions he raised. — Alfred H. Stiles Jr., Glenfield, New York

FARM PROBLEM

As far back as I can remember we have had a chronic condition in our country known as the "Farm Problem." For the sake of brevity, we can call it simply overproduction, if we can define overproduction as being a condition whereby more is being produced than can be sold at prices that farmers consider satisfactory. In our efforts to establish the blame for this situation (there must be a villain, you know), we blame the large greedy farmers, the small inefficient farmers, the time-and-a-half farmers (those also working in town), the hobby farmers, the integrators, and of course the most popular whipping boy of all, the government. This system of blame-placing will shift, naturally, according to your own particular position, whether you're a large farmer, a small one, part-time, etc., and while it does no particular good, it might do something for you psychologically.

I have felt for some time, that in our efforts to find a whipping boy for our troubles, we are overlooking the obvious. It is farmers like myself and millions more like me who are causing a surplus. Does there have to be a villain? If we are the villains of this situation we are also the heroes, because we are giving this country living and dietary standards only dreamed of by large segments of the world's population.

The reason why we are doing these things is because we want something better for ourselves and our families. We want college educations for our children; we want new cars and modern kitchens; we want time to play golf or go fishing or take a vacation; and we are also artists or craftsmen enough to take pride in a job well done.

To have a good herd of cows, a 30-ton per acre crop of corn, or just to have a place you can be proud of is satisfaction in itself. In order to have these things we have only one alternative; we have to increase our efficiency . . . and this almost always means increased production, even though we realize we are pushing someone else out.

In summary, the reason why we have a perpetual surplus problem is because of the need of farmers to increase production in order to meet the double challenge of the high cost of living (and the cost of high living) and also because of the technological revolution which makes it possible — modern machinery, increased use of fertilizer, chemicals for control of weeds and insects, hybrid seeds, artificial breeding, etc., all play their part.

I would like to thank you for the publicity you gave our on-the-farm feed mill last fall. Although some people have told me that I am foolish to give away the competitive advantage I now have by making public the advantages of this type of a feed handling set-up, I don't feel that way. Although I realize that my neighbor is my competitor, I am sentimentalist enough to feel that a farmer deserves a better choice than being a pawn of big business or big government, and anything I can do to help farmers maintain their independence is a step in the right direction. — James Lane, Jr., Oneonta, New York.

Editor's Note: Fairlane Farm marketed 745,432 pounds of milk in 1963, as compared to 257,069 pounds in 1953. Between those same years, eggs produced jumped from 33,020 dozens all the way up to 196,796 dozens in 1963, which was the first year the feed mill was in operation at the farm.

FOREST LAND

I do not know about your "forever wild" state timber regulations in New York, but I think they're better than what we have here in Pennsylvania. I know it seems a waste to watch good trees return back to the ground, but I would think long and hard before bringing pressure to bear on a legislature for a change.

I don't think the small timber owner and farmer of your state would want our system, but I am only guessing as to what is best for the majority of all concerned. — Frank L. Morgan, Ellenton, Pennsylvania

What's New For Farm and Home



A new variable-cut transmission on the Gehl Chop-All Forage Harvester permits chopping at various lengths, starting at a one-quarter inch, by simply moving a lever on the transmission housing. This new transmission, appropriately called "Select-A-Cut" was recently announced by Gehl Bros. Manufacturing Co., West Bend, Wisconsin.

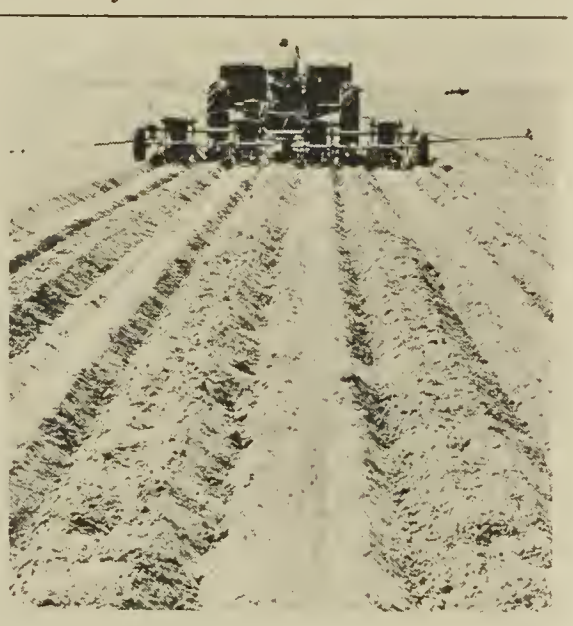


Foggers are being used more extensively in controlling insects on the farm. One of the most recent introductions is the BVI Thermo-Fogger 980, manufactured by Burgess Vibrocrafters, Inc. of Grayslake, Illinois. A built-in electric pump forces the insecticide through a sapphire atomizing nozzle and then a heated fog-producing chamber vaporizes it.

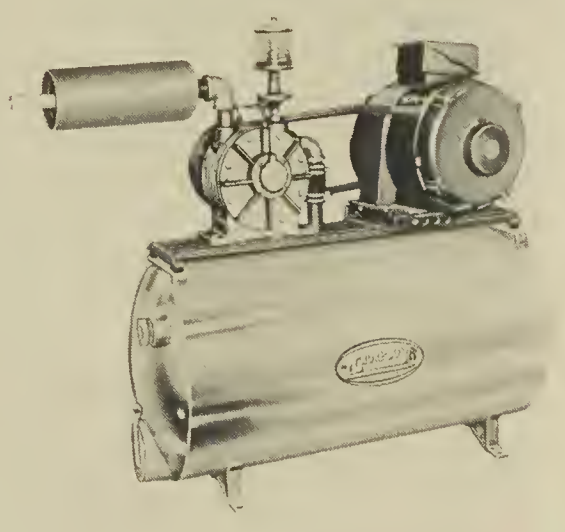


International Harvester Company, Chicago, Illinois, has introduced a straw chopper made for IH 303, 403, and 503 Combines. This is the first straw chopper made specifically for IH combines. The Straw Chopper features what IH refers to as "integral-overshot-design — custom-built design which makes the chopper an integral part of the combine."

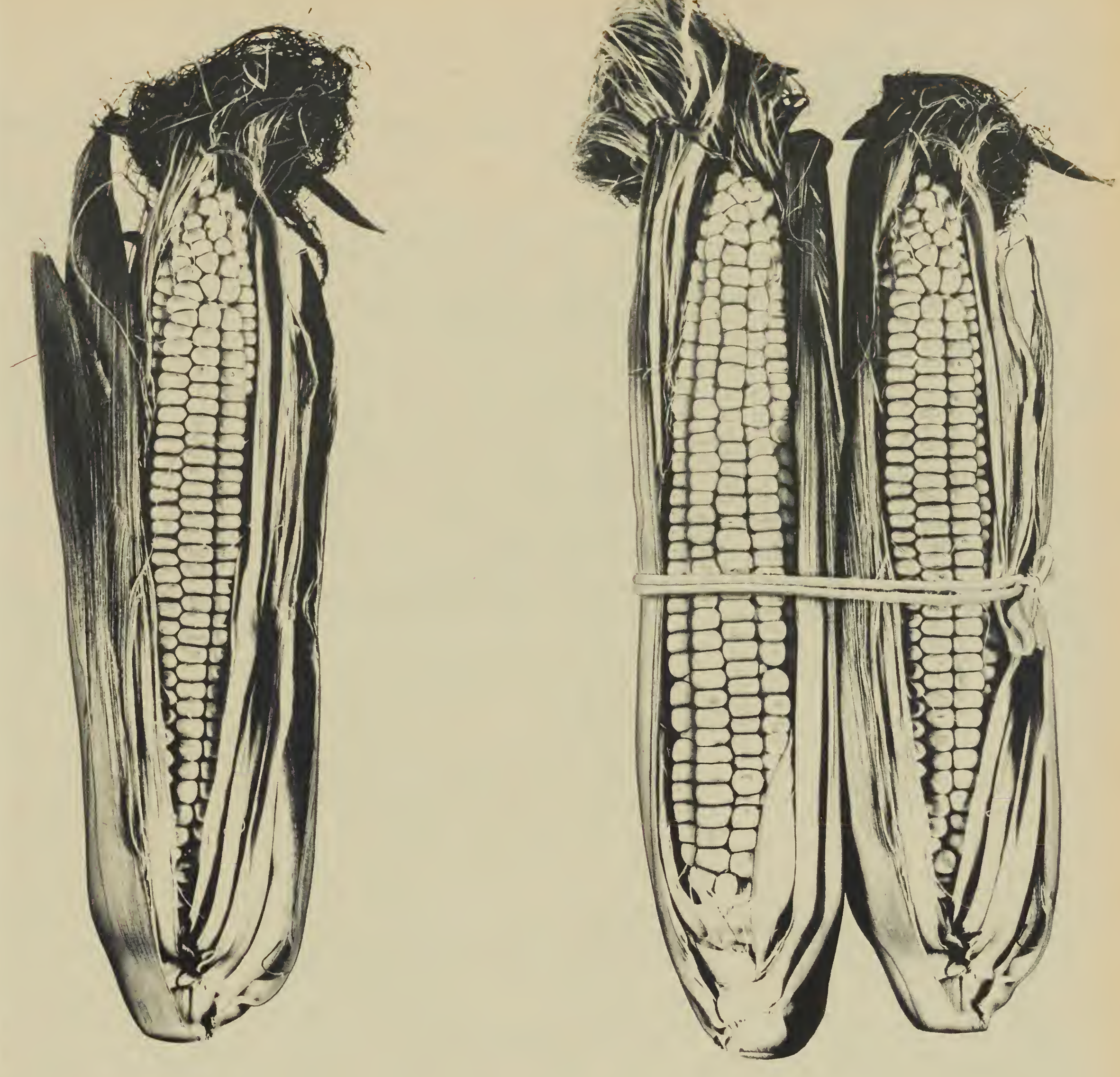
The American Plywood Association has published a new booklet explaining the advantages of plywood for liquid tanks. The 21-page booklet, entitled "Plywood Liquid Tanks" also has charts and tables outlining construction requirements and explaining fabrication details. Single copies of this booklet are available free by writing to the American Plywood Association, 1119 A Street, Tacoma, Washington.



Installation of more than 1,000 miles of Ger-Pak plastic mulch (manufactured by Monsanto Chemical Company of St. Louis, Missouri) has been made in Arizona by the Jackson & Perkins Company, world's largest rose growers. The mulch is laid by a specially designed apparatus that unrolls, punches planting holes at six-inch intervals, lays the mulch and spoons dirt over the edges of the film in one continuous operation.



The first glass-coated vacuum supplier tanks have been introduced by the Chore-Boy Manufacturing Company, Cambridge City, Indiana. Designed to prevent corrosion, the porcelain-glass coating is applied to all parts of the tank, inside and out.



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complete crop program that doubles state yields

Silage, 24 tons/acre. Ear corn, 111 bu/acre. High yields . . . double the average corn yields in New York, New Jersey and Pennsylvania.

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And that's how you can get **greater net returns** from your corn fields in 1965 . . . through Agway's Complete Crop Program for Corn.

Right now, today, you can get the jump on your 1965 corn crop. Call your local Agway Store or Representative. Your crop man will help you work out realistic per-acre-yield goals, based on your particular conditions, and a plan to attain these goals.

And remember, unit costs usually go down, as yields per acre go up. This means GREATER NET RETURNS . . . through Agway's Complete Crop Program for Corn.

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1. Lime . . . enough to bring soil test to a pH of 6.8 (6.5 for N.J.)
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3. Seed . . . adapted Agway Hybrids
4. Herbicides . . . recommended rates of Atrazine or Agway Weed Killer "66" Improved depending on your weed problem
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The day of automatic silo unloading for every silo is here . . . and Badger brought it!

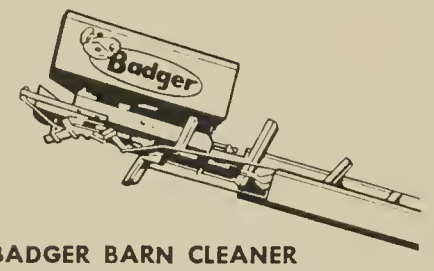
Badger Silo Unloaders pour silage down fast. They cut through the toughest frozen silage. They give years of trouble-free, day-after-day service. They save you time, make you money.

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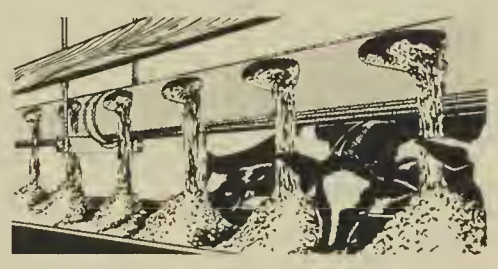
Quit climbing silos. Turn your silage-handling job over to a Badger automatic—world's largest selling silo unloader.

Call your Badger Dealer today.

TWO OTHER BADGER AUTOMATICS:

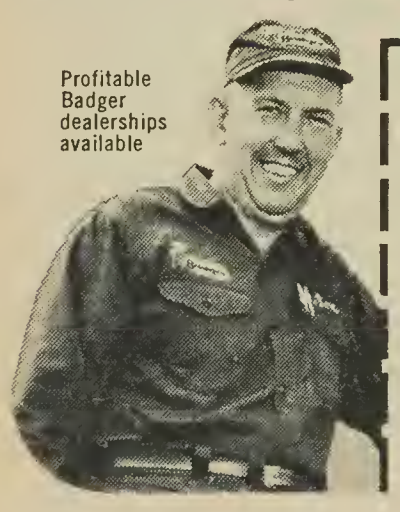


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Handle more cattle, cut labor costs. Badger Augers and Tube Feeders evenly distribute any ration or silage—and fast. They'll make you money.

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AA FARM DOLLAR GUIDE

SHORT OF HAY AND SILAGE for winter feeding? Dairymen in drought areas should take careful inventory of available feed and make plans to meet any shortage. Possibilities include:

1. Culling a few low producers. A cow that may show a profit on homegrown feed might be in red ink if you buy most of her feed.

2. Buying hay. Check price against quality; there is wide variation in feeding value of hay.

3. Buying government-owned corn and limiting hay consumption. Corn may be a better buy than hay. If you live in a county designated as a disaster area check with your county ASC office.

4. Grazing meadows or cutting hay this fall. Cornell agronomist Walt Griffeth points out that some much-needed forage can come from grasses and legumes after killing frost in October.

FEEDING OF HIGH MOISTURE GRAIN CORN is gaining. Can be harvested earlier, stored cheaper, handled with less labor. Tests show feeding results comparable to dry corn.

ANTI-POVERTY LAW now in effect has section providing government payments to dairymen when milk is rejected because of chemical residues if college recommendations were followed. Details to be worked out, but if your milk is banned, check with your county ASC office.

Do not use DDT, BHC, Toxaphene, chlordane, endrin, heptachlor, dieldrin, or aldrin near dairy cows or on roughage in any feed.

IN LATE OCTOBER, local papers will announce recruitment of enumerators for agricultural census. Each enumerator will call on about 150 farms. Farm wives are eligible; job will take about five weeks. Pay is $200 to $250 plus 8 cents a mile for personal car, and $23 to pay for time needed for on-job training.

DEADLINE FOR SIGN-UP for 1956 government wheat program is October 2. There are slight changes in program, but overall about same as in '64. If interested, check with your county ASC office. Some wheat growers in State of Washington plan a court test of legality of present program.

EXTERNAL PARASITE CONTROL ON POULTRY relies heavily on use of chemicals. Sevin and Co-Ral are recommended by Cornell University entomologists for lice, red mites, and Northern fowl mites. Malathion also recommended for lice. Vapona strands found to work well against Northern fowl mite.

THE REFERENDUM VOTE on the amendments to the New England milk marketing orders approved leaving the Connecticut milk marketing order as it is, merging the Boston, Worcester, Springfield and Southeastern New England orders into one. The amendments will go into effect October 1. There is an injunction in court against it, but this is expected to be a fairly minor action.

PRESIDENT JOHNSON signed bill authorizing him to limit imports of beef, veal and mutton whenever Secretary of Agriculture estimates imports will exceed 110% of annual import of these meats in period 1959-1963. Administration opposed action. Law is compromise; not all beef raisers wanted it.

PLASTICIZING WOOD

Researchers at the College of Forestry at Syracuse, New York, have developed a method for plasticizing wood so it can be bent into almost any shape and then harden. Treatment involves liquid ammonia at a temperature of -30°C. Chemical loosens hydrogen bond in cellulose and allows slippage along cleavage planes.

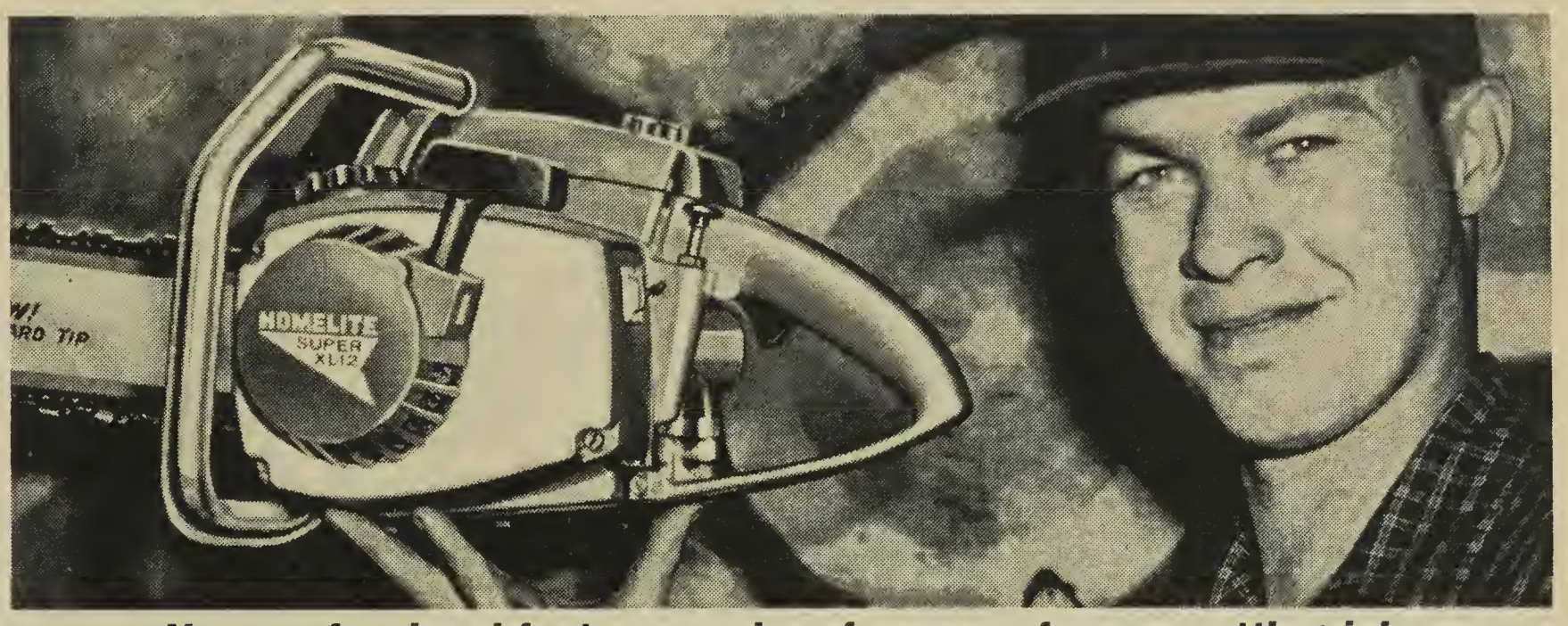
It's believed to have application in furniture-making and many other uses. Works equally well on all types of wood, although certain types absorb chemical more rapidly. "Sets up" hard, with greater toughness than before treatment.

It's New

Sweetener — There is a report from Michigan that some maple producers are experimenting with wrapping a few feet of the tree trunk with plastic to increase sap flow. Carefully-controlled experiments are contemplated to check on observations made in the field.

World's Lightest Direct Drive Chain Saw with Super Power

NEW HOMELITE SUPER XL-12



New professional features and performance for any cutting job

Here's the first lightweight chain saw with all the famous Homelite professional features in a direct drive saw with super power . . . new Homelite Super XL-12.

Extra power cuts 15″ softwood in 15 seconds, fells trees up to 4 feet in diameter. Weighs only 12½ pounds*. New muffler smothers noise. All the professional features of Homelite short-stroke engine. Flushcut handle. Straight blades (12″ to 24″), 14″ plunge-cut bow and clearing bar. Have a free demonstration at any Homelite dealer listed below.

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Akron—Blew Equipment, Inc.—32-43 Mechanic St.
Albany—Terminal Hardware, Inc.—1155 Central Ave.
Albion—Bentley Brothers—RFD #2
Altamont—Alfred L. Schager—Star Route
Amsterdam—Joe Bazaar's Machine Shop—RD #2
Amsterdam—V. O. Smith Auto Sales—RFD #4—Rt. 30 N
Angelica—Herbert Wagner—Dalton Road —RD #1
Arkport—Francis Gowiski—RD #1
Armonk—Young & Ogden—Route 22
Auburn—Main & Pinckney—RD #6
Avon—Webb Implement Company
Bainbridge—Carlton Loomis—Brackett Lake Road
Baldwin—Tool Rental Inc.—500 Merrick Road
Ballston Spa—Perrino Implement & Tractor—RD #4
Ballston Spa—Pettit & Son Equipment, Inc.—Route 50—South of Ballston
Bath—Bath Truck & Tractor Company, Inc.
Bedford Hills—H. A. Stein Tractor & Equipment Co. North Bedford Road
Belfast—Grastorf & Guilford—Main Street
Belleville—Maurice L. Herron—Southern Jefferson County—opposite corner of Post Office
Blasdell—Monarch Sales & Dist. Company—4281 South Park Avenue
Blooming Grove—W. H. Rudolph, Inc.
Bolivar—Bolivar Magneto Company—65 Wellsville Street
Bradford—Fleets on Lake Lamoka
Brewerton—Van Epps—Route 1, Shop #9517
Brewster—The Powerhouse—Route #6
Braircliff—Wallace J. Scott, Jr.—Route 100
Brooklyn—Neptune Marine—2023 Neptune Avenue
Callicoon—John H. Eschenberg—Rt. 17-B
Camden—Willard Rood—6 Mexico Street
Canandaigua—Aldrich Farm Equipment—RD #2
Canastota—Alfred A. Patano—409 New Boston St.
Canisteo—Olson Equipment—58-62 Depot Street
Canton—Arthur Gary—R.D. 4
Carmel—Nichols Hardware, Inc.—Main Street
Center Moriches—Savage Hardware—383 Main St.
Chaffee—Howard Ellis—Allen Road—R.F.D.
Champlain—Raymond Bedard
Chatham—Chatham Machine Shop—Rte. 203 Church Street Extension
Churchville—Mr. M. E. Fairbanks
Cincinnatus—Robert Dunham—RFD 2—Route 2
Clarence—Williams Tree Surgeons—Townline Road
Clinton—Clinton Tractor & Implement Company, Inc.—Meadow Street
Coeymans—Blaisdell's Repair Shop—Westerlo St.
Cold Spring—Cold Spring Service Center—Chestnut Street—Route 9D
Conklin—Ray E. Goodell—R. D. 1
Cooperstown—Western Auto Assoc.—167 Main St.
Corinth—Main Motors, Inc.—98 Main Street
Cranberry Lake—Cranberry Lake Inn Marina—P.O. Box 85
Croton-on-Hudson—Zoller's Service—87 N. Riverside Avenue
Dansville—K. G. Richmond—22 Ossian Street
Deer River—Francis Nicholl—Saw Mill Road
Delhi—Delhi Farm Equip. Co.—23 Elm Street
Delmar—Hilchie's Hardware, Inc.—255A Delaware Avenue
Deposit—Edwin Hodam, Jr.—Sands Creek Road
Downsville—Joseph Capaldo—Route 206
Duanesburg—Berical's Equipment Co.—RD #1
East Palmyra—J. J. O'Meal
East Pembroke—Ron & Newts Sales & Service
Elma—Pilgrim Equip. Co.—3080 Transit Rd.
Elmira—Cory's H'ware Co.—1548 Lower Maple Ave.
Erieville—Magee's Service
Fairport—Knapp & Trau
Falconer—Schutt's Saw & Mower Shop—135 South Work Street
Fishers Island—Home Appliance Center—Box G
Franklinville—Len's Sharp Shop—10 Green Street
Fredonia—Fredonia Farm Supply—McAllister Road
Freeport—Freeport Equip. Sales & Rental, Inc.—170 West Sunrise Hiway
Fulton—Harold Burton—202 Division Street
Garden City—Worth Supply Co.—270 Nassau Blvd. South
Gasport—C. J. Perry & Sons, Inc .
Geneva—C. M. Neilson & Son, Inc.—481 Hamilton Street
Germantown—Capitol Valley Cont. Inc.—Blue Stores
Glens Falls—J. E. Sawyer & Co., Inc. 6490 Glen St.
Glen Head—Countryside Enterprises, Inc.—691 Greenvale-Glen Cove Hwy.
Gouverneur—NESCO (Northern Engine & Supply Company)—RD #5
Gowanda—Gowanda-Harley Davidson Sales—Zoar Road—RFD #1
Great Valley—David J. Davies—Sugar Town Road
Greenwich—L. G. Collins—RFD #1
Hillsdale—Hillsdale Farm Supply Inc.
Holland—Lewis Machinery Service—Phillips Rd.
Hudson—Bame's Marine Supply—190 Fairview Ave.
Huntington Station—Island Power Tool Co., Inc.—152 West Jericho Turnpike
Ilion—Burrill Saw & Tool Works—401 E. Main St.
Ithaca—Valley Fixit Shop—363 Elmira Road
Johnsonburg—Walter Pope—RFD
Johnson City—Newman Bros. Hardware—257 Harry L. Drive
Johnson City—Oakdale Equip.—702 Main Street
Johnstown—LeRoy C. Sweeney—RFD #1—Hiway 116
Keene—Gordan C. Wilson—P. O. Box 16
Keeseville—Dan Downs
Kenmore—Kenmore Renting Co.—1297 Kenmore Av.
King Ferry—Roy A. Tuttle, Inc.—P. O. Box 34
LaFargeville—Clarence Comstock—RFD 1—Plessis Omar Road
Lake Pleasant—Wight's Esso Station
Larchmont—Foley H'ware, Inc.—88 Boston Post Rd.
Lee Center—Stokes Chain Saw Service—RT #26
Leeds—Peter Suttmeier—Sandy Plains Road
Liberty—Gerow Brothers
Long Eddy—Malcolm Crawson—P. O. Box 66, Rt. 1
Malone—Elliott & Hutchins, Inc., East Main Street
Margaretville—Fairbairn Lumber Corporation
Marlboro—State Sarles Sons Inc.—Route 9W
Massena—Douglas LaPoint—Rt. #1
Mayfield—Peter Johnson—R.D. #1 Mountain Ave.
Mechanicville—Brenn's Lawnmower & Engine Shop R. D. #2
Mendon—Saxby Implement Corp.
Middleburg—River Imp. Co., Inc.—Middle Fort Rd.
Middletown—H. L. Ayres—P. O. Box 187
Millerton—Brewer's Mower Sales & Service—Sharon Road
Monsey—John W. Knapp—Route 59—P. O. Box 105
Morrisville—Ralph Pashley—P. O. Box 432
Naples—Francis Bills Garage—RD #1
New Lebanon—Joseph H. Mittnight
New Rochelle—Gundelach's Inc.—388 Main St.
New York—New Hippodrome H'ware—70 W. 45th St.
Niagara Falls—A. W. Bergeron's Garden Shop & Nursery—2594 Seneca Avenue
Niagara Falls—Delta Tool Rental—2901 Military Rd.
Nicholville—Bould's Farm Supply
Nineveh—Maurice M. Wightman Sales & Service—R. D. #1—East River Road
North Boston—Klein Equipment Corp.
North Syracuse—Hytron Lumber & Supply, Inc.—Fay & Allen Road
Odessa—Odessa Farm Equip., Inc.—c/o Stanley Darling—RD #1
Odgensburg—Fred Shurleff's Inc.—Washington & Catherine Streets
Oneonta—West End Imp. Co.—Country Club Rd.
Orchard Park—Site Contractors, Inc. 132 Calif. Rd.
Oswego—Cloonan Small Engine Service—RD #2 Hall Road
Palmyra—Jim's Photo & Hobby Shop
Panama—Weise Hardware & Electric Co.—Main St.
Parish—Parish Hardware—7448 Main Street
Pavilion—P-D Service
Peekskill—Peekskill Lawn Mower Center—Crompond Road
Penn Yan—Smith's Farm Store, Inc.—135 E. Elm St.
Pike—Leon Wilcox
Port Jefferson—Vehicle Serv. Corp.—1575 Patchogue Road
Port Leyden—McHale's Chain Saw Company
Port Washington—Manhassett Bay Outboard, Inc.—78 Shore Road
Poughkeepsie—Gifford Power Equipment, Inc.—115 Dutchess Turnpike
Prattsville—Prattsville GLF Service
Rensselaer—Henry Meurs & Son, Inc.—202 B'dway
Riverhead—Tryak Truck & Equip. Co.—Pulaski St.
Rochester—John Feathers—4135 W. Henrietta Road
Sag Harbor—Peerless Marine—Ferry Road
St. James—Molin's Lawn Shop—665 Jericho T'pike
Salem—George A. Jolley—South Main Street
Sanborn—Le Van Hardware Inc.—5856 Buffalo St.
Saranac—Jon T. Ryan
Saranac Lake—Moody's Sales & Serv.—7 Duprey St.
Saugerties—Ken-Rent—RFD 5—Box 13—Mount Marion Rd.
Savannah—Dickens Bros.
Schenectady—Carman Paint & Hardware—207 Campbell Road
Schenectady—King Trac. Co., Inc.—145 Cordell Rd.
Schenectady—David Mahoney Co., Inc.—209 State St.
Schroon Lake—Lakeview Outdoor Center, Inc.—U S Route 9
Scotia—Wayside Acres Home & Garden Center—209-211 Sacandaga Road
Skaneateles—Bobbett Implement & Tractor Co.—Fennell Street—Box 98
Smyrna—John E. Blanchard—Route 80—Main St.
Southampton, L.I.—Wm. A. Frankenbach Garden Center—North Hwy. North Main Street
Sodus—Delyser Bros.
Speculator—Gerald Buyce
Springville—Warner Lumber Mill—R. F. D. #1
Stamford—Eklund Farm Machinery—P.O. Box 216
Staten Island—Forest Equip. Co.—1319 Forest Ave.
Staten Island—Trimalawn Equip.—2081 Victory Blvd.
Staten Island—United Rent-Alls of Staten Island—3874 Richmond Ave.
Stone Ridge—Dedrick Pow. Equip. Co.—Cottekill Rd.
Summitville—L. Finkle & Son, Inc.—Route 209
Sylvan Beach—Koster Building Supplies, Inc.—9th Avenue
Syracuse—Alex. Grants' Sons—935 Erie Blvd. East
Syracuse—Reliable Farm Supply, Inc.—2083-85 Park Street
Syracuse—West Genesee Sales, 2522 Genesee St.
Tarrytown—County Power Tool Company—625 White Plains Road
Thendara—Dan Hudon—Route 28
Troy—E. J. Goyer—R. D. 1
Trumansburg—Millspaugh Brothers—Cayuga St.
Tupper Lake—Herve St. Onge—39 Broad St.
Warrensburg—Carl R. Kenyon—Route 28
Warwick—Walter Equipment Company
Waterloo—Seaway Marina, Inc.—473 Waterloo-Geneva Road
Watertown—White's Lawn Supply—RD #4 (c/o C. Howard White)
Wayland—Gross & Didas—12 Main Street
Wells—Floyd Simons—Box 138 Old Wells-Speculator Road
West Albany—Abele Tractor & Equipment Company—72 Everett Road
West Hampton Beach, L.I.—West Hampton Fuel—112 Montauk Hwy.
West Henrietta—James R. Hanna, Inc.—6800 West Henrietta Road
Westport—Marshall F. Fish—Rt. 22 on Lake Champlain
West Winfield—West Winfield Farm Supply
Whitehall—Norman H. MacLeod Saw Shop—Comstock Road
White Plains—The Lafkin's Golf & Lawn Supply Corp.—1200 Mamaroneck Avenue
White Plains—Pickard Hardware, Inc.—203 E. Post Road
Whitney Point—H. A. Penningroth & Son

NEW JERSEY

Allendale—Allendale Equip. Co.—317 Franklin Twp.
Allenwood—Sigler's—Rt. #34 Spring Lake Circle
Bayonne—Allied Equip. & Supply Corp., Inc.—691 Broadway
Bayville—Dover Sup. Co.—Box 225—Mill Creek Rd.
Bergenfield—Bergen Rental Service, Inc.—150 South Washington Avenue
Blairstown—J. C. Roy & Son
Branchville—The Roy Company
Camden—Antrim Hardware Co.—1514 Federal St.
Cliffside Park—Halton Hdwe.—666 Anderson Ave.
Clinton—Philip G. Berger—Box 5286—Route #22
Cranford—Andy's Handy Service—117 South Ave. W.
Dover—Handymans Tool Shop—Centergrove Rd. & Route #10
Eatontown—Grasslands, Inc.—Box 94
Elizabeth—A-M Tool Rental—69 Cherry Street
Englishtown—Joseph J. Szczepanik—Union Valley Road
Fairview—Edge Grinding Shop—388 Fairview Ave.
Freehold—C. H. Roberson, Inc.—29 Court Street
Garfield—Ralph's Hwg. Serv.—Rt. 46 & Boulevard
Gladstone—G. F. Hill & Company
Hackettstown—M. B. Bowers & Son, Inc.—128 Willow Grove St.
Hammonton—Parkhurst Farm & Garden Supply—301 North White Horse Pike
Hanover—Do It Yourself, Inc.—Route #10
Harrison—H. I. Karu—215 Harrison Avenue
Hazlet—The Service Equipment Co.—3141 Route 35
Hewitt—Sportman's Boats & Motors—W. Shore Rd.
Hightstown—C. H. Roberson, Inc.—Rt. 33—Mercer Street
Lambertville—John Kurtz—R. D. 1
Lawrenceville—Lawrenceville Hardware Company—2667 Main Street
Ledgewood—New Jersey Lawn & Power Mowers Equipment—Route 46
Little Ferry—Ted's Lawn Mowers—15 Riverside Ave.
Madison—Tractor & Lawn Mower Sales & Service—331 Main Street
Maplewood—Gauthier Door Check—2 Burnett Ave.
Medford—Fred Myers, Jr.—RR #2—Box 304
Middletown—Monmouth Mower Shop—656 Route 35
Monroeville—Albert Weber—Route 538—Swedesboro-Franklinville Rd.
New Egypt—J. R. Caines—Route #539
Northfield—Vic Collins—2101 New Road
North Plainfield—United Rent-Alls—714 Route #22
Oakland—Bergen Power Equipment—593 Valley Rd.
Old Bridge—Old Bridge Tractor—RFD—Box 328
Old Bridge—William J. Rainauad—Box 95—Hiway. 9
Paramus—Artie's Hardware & Machine Shop, Inc.—495 Paramus Road
Penns Grove—R. F. Willis Co., Inc.—7 Oak St.
Pine Brook—Shulman Tractor Co., Inc.—Route 46
Pompton Plains—Livingston Sport Center—Route 23
Princeton Junction—Grover's Mill Company
Riverton—Riverton Fm. & Garden Sup. Inc.—Rt. 130
Roseland—Needham's Grinding Service—191 Eagle Rock Avenue
Saddle Brook—Point Service & Supply, Inc., 112A Route 46
Short Hills—Millburn Grinding Shop—658 Morris Turnpike
Somerset—Frank's Building Supply Co.—619 Somerset Street
Somerville—Post Stores, Inc., US Route 22
Summit—Glenjay's Mower & Garden Shop—385 Springfield Ave.
Sussex—Len's Service Station—R.D. 1
Trenton—United Rent Alls—1690 Pennington
Tuckerton—Margraf's Hardware—North Green St.
Union—Rent-A-Tool—2491 Route 22
Vincetown—Wells Mobile Service—Route #206
Vineland—Swanson Hardware Sup.—533 N. E. Ave.
Waterford Works—Rusnak Bros. Inc.—Chew Road
Westfield—Storr Tractor Co.—469 South Ave. E.
Wharton—J. W. Malson, Sr.—Route 15 (RFD 2)
Williamstown—Weed's Lawn & Garden Mart—311 South Black Horse Pike
Woodbury—Arber's Lawnmower & Engine Service—962 North Broad Street

HOMELITE BRANCH OFFICES: 740 New Loudon Road, Latham, N.Y.; 2518 Erie Blvd. East, Syracuse, N.Y.; Rt. 1, Boston Post Road, Port Chester, N.Y.; 1650 William St., Buffalo, N.Y.; 39 River Road, North Arlington, N.J.; 1006 St. George Ave., Avenel, N.J.

RURAL RECREATION STUDY

IN THE SUMMER of 1963, the New York State Cooperative Extension Service made a survey of commercial outdoor recreation enterprises. From information supplied by the county agricultural agents, 72 enterprises were selected and visited. They were located in 33 counties, and representative of all regions of the State except Long Island.

Most of the enterprises covered in the survey were individual or family small businesses. They represented a wide range of types.

The largest proportion of operators were middle-aged (showing the trend toward recreation as a retirement enterprise), most had children who could help, and they "liked people."

Scenic surroundings and the presence of water attract many to such enterprises — credit and weather are the greatest hazards. More than half of those interviewed owned their land as farms before developing for recreational purposes; about one-third purchased or leased land especially for development.

Advertising varied from highway signs and advertising with promotion agencies, to radio and newspaper publicity. It was generally agreed, however, that word-of-mouth advertising is by far the most effective. In many cases, big expenditure was saved because the owner had mechanical skills to do the work himself.

One-half of the 72 operators borrowed money to get started, in amounts from $500 to $100,000, most of it from local banks.

The following case histories exemplify the scope, scale and many typical situations:

Winter Sports

Weather victimized this particular winter sports area in its first season — after the owner had abandoned plans for a housing and water development. He had purchased a neighboring unproductive farm with the intention of building a 30-acre lake and surrounding it with a housing development.

Water was easily available, but the owner discovered that the proposed lake was too large to be eligible for government financial assistance. A two-acre pond and some small but steep hills brought thoughts of a winter resort.

So he and his son designed and built a chalet-type lodge for administrative offices, etc., installed electricity for night lighting at the area, and built a banked sled run. Advertising brought customers, but problems developed. There were complaints that fees were too high (they were reduced); skate and sled rentals progressed fairly well, but sales of gloves, hockey sticks, etc. were poor. The weather didn't cooperate, expenses ran higher than expected, and finally the owner let the land (including the lodge and other improvements) go back to the former owner.

In analyzing the situation, the owner decided that his failure came from developing too much without first operating for part or all of a season with fewer facilities in order to sample public response.

Campground

In this case, the advice of a friend, location in a pleasant forested valley, and experience in the construction business led to the successful establishment of a campground on part of a family farm.

Two brothers purchased a bulldozer and small power shovel and, aided by one brother's experience, built a 10-acre pond and a shale road for access. They added to income by renting a few boats to fishermen, and offered some campsites for rent. Business was at first steady, though not overwhelming.

Some eight years later the operation includes 50 acres of ponds (with sand beaches for swimmers); 75 campsites (one-half with electricity for trailers); a 66' x 36' recreation hall; a small store stocking camping and fishing equipment and some basic groceries.

They Come Back

Most of the customers come from New York and other downstate cities; many prolong their stay. The average stay is a two to three night visit. Families provide the most business; total rentals have increased each season with many "repeats," — an estimated 75%. The campground yields about one-fourth of the gross income of the two families.

More expansion is planned, and within two or three years the brothers hope to drop out of farming and derive all of their income from the campground business.

A Vacation Farm

A vacation farm business nets a third of the income for another New York State farm family on a 300-acre farm. Guests are housed in three apartments in a remodeled frame house a few hundred

(Continued on next page)



and there are 5 new farm models for 1965

Amazing tool, a yellow McCulloch chain saw. You can pick it up with one hand, yet inside that engine lurks far more power-per-pound than there is in your tractor. McCulloch is working power. To cut firewood and saw logs from here till Sunday. Or help you set a row of fence posts as far as the eye can see. McCulloch is dependable power. We put a cast-iron liner inside the cylinder of every model so you can rebore after years of use. On four new farm saws we have shock-mounted the frames to reduce vibrations, make cutting easier. And McCulloch is versatile power. Just add our power tool attachments (Brushcutter, Earth Drill, or MAC 35A All-Purpose Drill) and the engine does some jobs even your tractor can't do. There are five new farm models at your McCulloch dealer's right now. Prices start at $124.95.* If you'd like to see all 10 new models for farm and professional use, write us for a free color catalog. McCulloch Corporation, 6101 W. Century Blvd., Los Angeles 45, California. Dept. AA-10

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LEADERSHIP THROUGH CREATIVE ENGINEERING

SELECTING HERD REPLACEMENTS

by Dale Van Vleck *

A QUESTION often asked by animal geneticists, as well as by dairymen, is whether or not selection for high milk yield is as easy to achieve in high-producing herds as in lower-producing herds. Some geneticists and animal breeders have contrasting opinions.

Often a replacement heifer is selected or rejected on the basis of her dam's performance. Therefore, a practical approach to the problem is to observe whether a daughter's production resembles her dam's to a greater or lesser degree in herds with high or low production.

Study Records

The most recent evidence on the question of the success of selection in high and low-level herds comes from a study of first lactation records of 5,740 daughters and their dams. All were New York Holsteins. About half of the daughters were sired artificially; all were either first or second calves of their dams. The pairs were assigned to ten herd levels according to how much the dam's herdmate average differed from the New York DHIA season of freshening average for Holsteins.

The herd averages for the herdmate levels varied from 15,600 lbs. of milk for the highest ten percent down to 10,500 lbs. of milk for the lowest ten percent — a range of 5,000 lbs. of milk. In all ten groups, the deviations of the daughter records from their herdmate averages were about 20 to 25 percent of their dam's herdmate averages.

For example, in the highest herd level, if the dam's first record exceeded her herdmates by 1,000 lbs. of milk, then daughters of such dams would on the average exceed their herdmates by 200 to 250 lbs. of milk. In other words, the fraction of the differences we see in records of dams which can be transmitted to their offspring is the same for all herd levels studied. This means that selection of daughters for replacements, if based on their dam's performance, will be equally as effective in high-level herds as in low-level herds.

Undoubtedly, herds which average nearly 16,000 lbs. of milk are being fed more concentrates, and may be handled with better milking and management practices. These results show, however, that such herds have no advantage in selecting replacements over herds where less stress is placed on feeding to capacity and the use of the most modern management practices. Heifers selected from top-producing cows will have the same relative advantage over heifers of low-producing cows in all herds.

The records of daughters sired artificially and their dams followed the same pattern. Here the records were divided into four nearly-equal groups. Again the average daughter deviation from herdmates was about 20 to 25 percent of the deviation of the dam from her herdmates, from all herd levels.

It must be pointed out that all these records were from DHIA herds, which tend to average higher in milk production than others. This evidence doesn't prove that herds with 6,000 to 8,000 lb. averages would have the same characteristics for selection of replacements based on dam's records as the DHIA herds.

* Animal Husbandry Department, Cornell University

Rural recreation study

(Continued from page 19)

yards from the family dwelling.

The farmer was an experienced carpenter and electrician, and he did a careful job on remodeling the old house into two apartments (it took him three years). The business opened in 1958, and after a second successful season another apartment was added, and, they say, "we could fill five more."

The farm is located in a noted recreation area where family vacations are popular; customers usually stay for a week. Most come from Long Island, some from eastern states other than New York — and some from foreign countries as a result of advertising abroad by a national farm vacation promotion agency.

Besides visiting world-famous features of the area, the guests spend hours at the farm, helping with the chores, playing games, and enjoying the animals and the farm atmosphere.

This family enjoys visiting with people, feeling that "it's an education." Long hours of work are necessary to operate a recreational enterprise — but no longer, they feel, than when the family relied solely on dairy and crops for farm income.

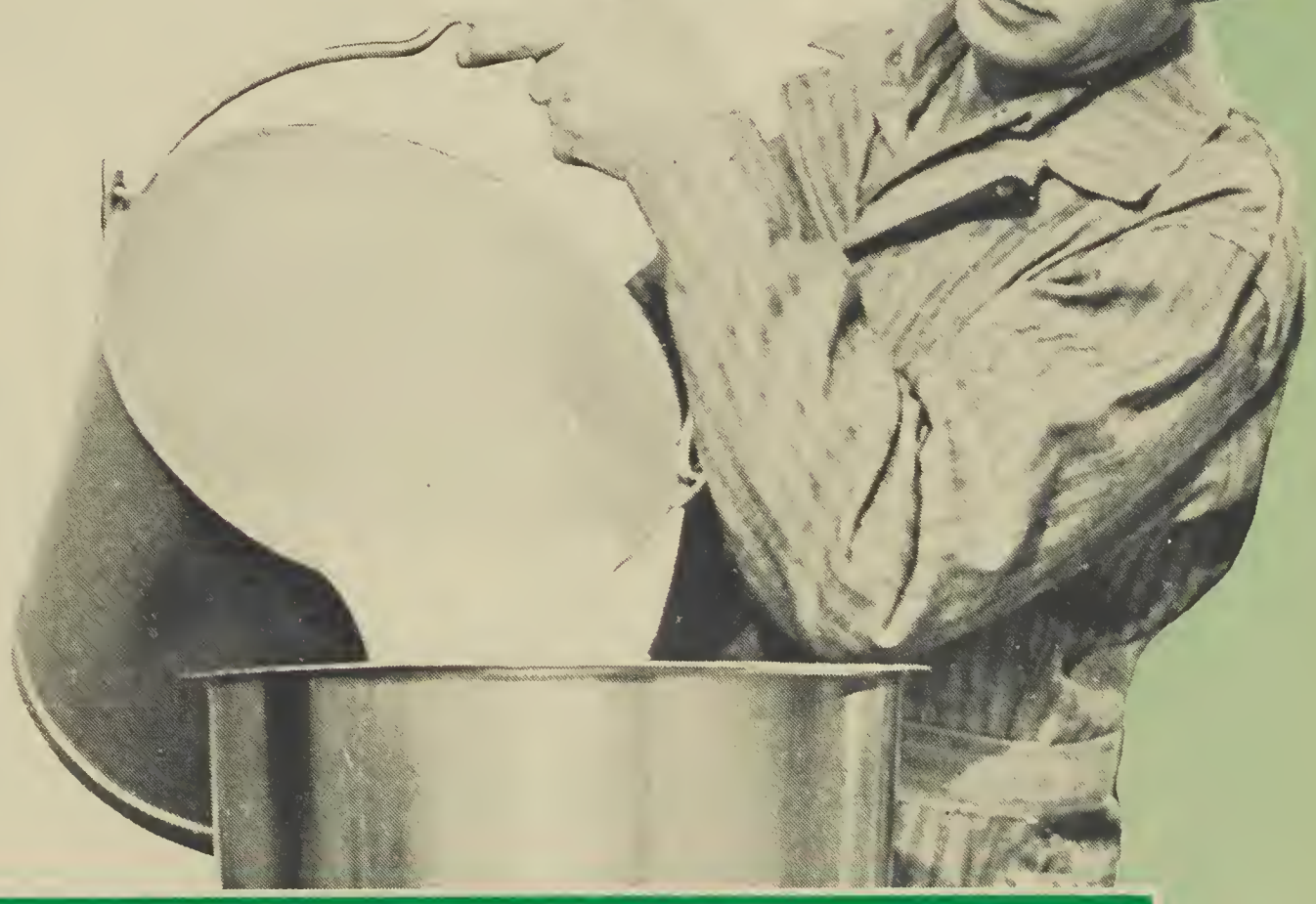
American Agriculturist, October, 1964

More emphasis is being put on milk production **per man.** This is good, for college studies of commercial dairy farm business records show that a 51% higher milk output per man can bring a **91% increase in labor income for the operator.** Consistently, dairy farms with high milk output per man enjoy higher rates of labor income.

What should be your goal for milk output? Not long ago 200,000 pounds per man per year was considered good. That figure is now obsolete, and 300,000 pounds is more commonly used.

We believe even the 300,000-pound figure is too conservative. Rising land values, equipment costs and wage rates all point to the necessity of higher returns for the dairyman. Many Beacon feeders are already well above the 300,000-pound goal. **Some are producing over 600,000 pounds of milk per man per year.**

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Start now to increase milk production per man on your farm. Call your Beacon dealer or Beacon Advisor today.

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Agway is the union of resources to provide you with still more efficient purchasing and greater marketing strength—to serve you better and to save you money.

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All nylon webbing, fits all models. Easily installed. Approved by N. Y. State Bureau of Motor Vehicles. Safe metal-to-metal buckle. Black. reg. $7.95.
Sept. 24 - Oct. 17 **ONLY $2.98**

2. SEAT BELT RETRACTOR

All metal, **not** plastic. It holds. Pre-wound, keeps belts off floor and ready to use. Easy to install. reg. $2.95. Sept. 24 - Oct. 17 **ONLY $1.75 pr.** (for one seat)

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Safe, easily adjusts from 5′ 1″ to 8′ 2″ with self-lubricating bronze bearings. 12,200 lb. load capacity. reg. $8.45. Sept. 24 - Oct. 17 **ONLY $5.25**

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Save on this bargain buster. Metal clad, zinc-carbon battery for instant power, long life. reg. 15¢ ea. Sept. 24 - Oct. 17 **ONLY 2 for 23¢**

6. QUEEN BEE PORTABLE HEATER

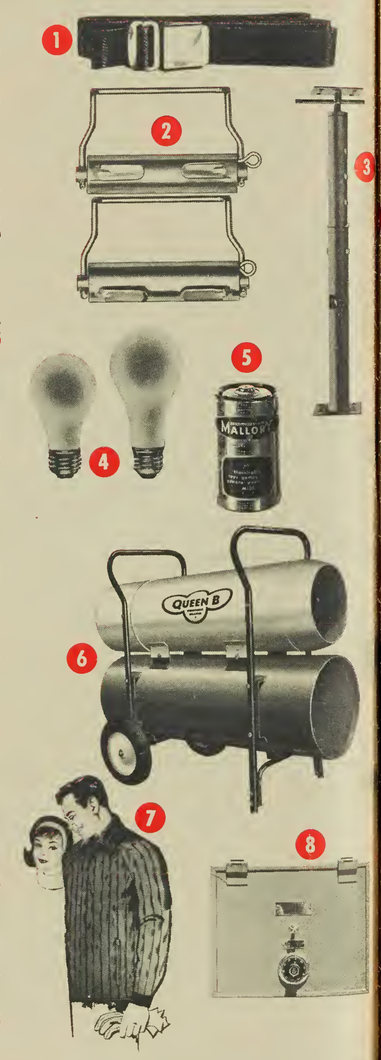
For safe, economical heat. Capacity 85,000 BTU—enough circulating heat to cover 10,000 cu. feet. Burns inexpensive kerosene. Average operating cost usually less than 9¢ per hour. No fumes, odor or dirt. 20% greater fuel capacity than most makes. It's a honey. reg. $149.00. Sept. 24 - Oct. 17 **ONLY $99.00**

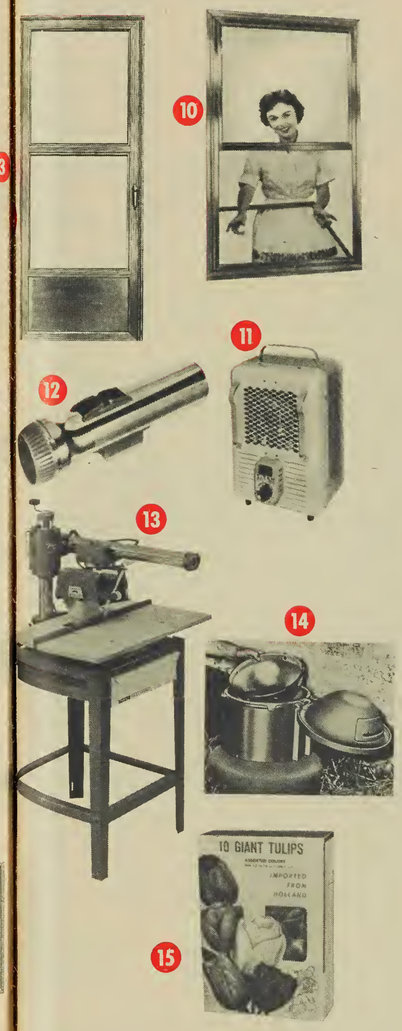
7. THE MONTCLAIR INSULATED SKI JACKET

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11. 110-VOLT UTILITY HEATER

Portable designed for overhead mounting. Use anywhere you need fast, automatic thermostat control. Dual-range heat selector. Quiet, efficient, UL approved. reg. $15.95.
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A chrome-plated beauty with pre-focused bulb, sturdy magnet, and separate on-off switch. Buy several at this light price. reg. $1.20. Sept. 24 - Oct. 17 **ONLY 88¢**

13. HOME SHOP RADIAL SAW

New DeWalt radial saw does the work of a dozen different power tools. Sawing, sizing, boring, jointing, shaping, sanding, curving, etc. Easy to operate. Complete with free woodworking booklet. Superior accuracy and precision cutting. reg. $199.00.
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Eliminates bucket lugging and ice chopping. No levers, flats, or springs to jam. Heating element is rust-resistant and is submerged to heat water first. Keeps water at 50° with minimum heat loss. One year warranty. reg. $43.40. Sept. 24 - Oct. 17 **ONLY $39.95**

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LATEST ON LEUKOSIS

by R. F. Gentry Department of Veterinary Science, The Pennsylvania State University



THE CONTINUED RISE in leukosis is of major concern to many researchers in poultry diseases. In the northeastern area this is of extreme importance inasmuch as leukosis condemnations for the North Atlantic section are usually twice that of the national average.



R. F. GENTRY

During the months of September and October, 1963, the national average was 17.9 percent, while in the North Atlantic area approximately 35 percent of the condemnations were the result of leukosis. Why our North Atlantic area has this higher incidence has not been completely explained, but I would like to suggest several factors which I feel are of prime importance.

Don't Mix Eggs

The first practice to condemn is the mixing of eggs from various supply flocks, because you greatly increase the chance for a severe outbreak. This means that each supply flock should be handled separately. In other words, a group of chicks should all be from the same source.

The spread and transmission of the leukosis virus (visceral type) apparently takes place by various methods. First, the virus has been shown to be egg-transmitted. This does not mean that every chick from every hen in an infected flock contains the virus. On the contrary, it is apparently very much similar to the transmission of PPLO. Only a few hens ever transmit virus, and of these only a portion of the eggs are involved.

For example, let us assume we have a group of 100 hens. Only a few of these may ever shed virus, and then only to an occasional egg. On this basis, over a long period of time possibly 0.5 percent of all the eggs would be infected, and this figure is probably high. However, under proper conditions, the one infected chick in 200, 500, or 1,000 might be sufficient to trigger a severe outbreak.

Transmission Factors

What are some of the factors that may be associated with egg transmission?

A breeding flock that has a high incidence of leukosis will produce a certain number of infected chicks. On the other hand, chicks from a breeding flock that has never been exposed to leukosis would be free of the infection. For the sake of discussion, they can be called infected chicks and clean chicks. When we have infected chicks, which are relatively few, what about the rest?

Apparently many of the other chicks carry parental immunity. A majority of the breeders after exposure to the virus develop immunity. When passed on as parental immunity, a degree of protection is present, and in all likelihood would resist infection even if exposed to infected chicks. However, clean chicks from flocks that have never had exposure may be highly susceptible. Of course, genetic resistance plays a role in this situation. However, if these two groups were mixed, the chances of spread from infected chicks to clean chicks during brooding would be relatively great.

Different Strains

A second recommendation would be not to mix and hatch eggs from various parts of the country.

It is evident from research findings that there are different strains of the virus in the field. Also, there may be different strains of virus prevalent in various parts of the country. Under modern-day hatching practices, eggs are shipped from one area to another with no separation during hatching. Some may carry virus, but most of them are probably highly susceptible to the virus from a different area since the breeders have never had exposure to this different strain.

In the genetic selection of breeding stock, families showing a high incidence of leukosis are quickly eliminated. The remaining groups would thus have the advantage of genetic resistance for the local strain of virus — but little genetic resistance to other strains. If a group of eggs imported across the country carried virus, the susceptibility of the local chicks might lead to an outbreak.

One Age Group

As a routine procedure, we recommend only one age of birds on a farm at one time.

A third and probably the most important aspect of leukosis spread and transmission is premise infection. Once an outbreak has occurred on a farm, it is a potential source of infection to all subsequent flocks. If proper sanitation and disinfection of the poultry house — and the entire area surrounding it — has not been

(Continued on next page)

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We're so sure you'll like Lime Crest Barn Calcite, we want you to try an 80 lb. bag at our risk. If you're not entirely satisfied, just send us your receipted sales slip . . . we'll refund the full price you paid!

If Lime Crest Barn Calcite is not available in your area, send us the name of your feed or farm supply dealer . . . we'll make every effort to see that he's supplied.

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EMERGENCY FARM LOANS

Barthly L. Beach, State Director of the Farmers Home Administration in New York State, advises farmers that 37 counties have been designated by Secretary of Agriculture Freeman as eligible for emergency loans from the Farmers Home Administration as a result of the severe drought conditions that exist throughout New York State. "These emergency loans," said Mr. Beach, "are to assist eligible applicants to continue their normal farming or livestock operations, and to return to local sources of credit as soon as possible."

Who Is Eligible?

Any established farmer in a designated area is eligible if he (1) is a citizen of the United States; (2) is unable to obtain from other lenders the credit required to continue his normal operations; (3) has reasonable prospects for success with the assistance of a loan; and (4) possesses the legal capacity to contract for the loan. (A farmer in a non-designated area must meet the four eligibility requirements listed above and, in addition, show that he has suffered substantial production losses due to a natural disaster.)

Loan Purposes

Loans may be made for the purchase of feed, seed, fertilizer, replacement of equipment and livestock; for other essential farm and home operating expenses; and for the replacement or repair of buildings, fences, drainage and irrigation systems on individual farms that were damaged or destroyed by the disaster. Loans may not be made for refinancing existing debts or to compensate applicants for their losses.

Repayment Terms

The interest rate is 3 percent. Repayment schedules depend upon the purposes for which funds are advanced, and upon the estimated income of the applicant. For example, loans for crop production are usually scheduled for repayment when income from the crop is normally received; loans for replacement of livestock and equipment are repayable over periods up to 7 years; while loans for the repair of buildings and other improvements to real estate are usually repayable over periods up to 20 years.

Loans are secured by (1) a first lien on all crops to be produced with the loan, and on all livestock, farm machinery, and farm equipment purchased with loan funds; (2) the best lien obtainable on all other crops growing or to be grown; and (3) whenever necessary, the best lien obtainable on livestock, farm machinery, and farm equipment already owned by the applicant. Real estate security is always required when advances are made primarily for improvements to real estate, and in other instances when necessary to protect the government's interest.

Application forms and full information concerning emergency loans may be obtained at county offices of the Farmers Home Administration.

Latest on leukosis

(Continued from page 22)

carried out, each group of chicks will have an early exposure, and the incidence of leukosis may be high.

In spite of all our work, there are many individuals who feel they must have broilers or starter pullets available for sale at weekly or monthly intervals. In this way they have four, five or even ten different ages of birds on the farm at a single time. Once there has been an outbreak of leukosis, the premises become infested and it is virtually impossible to eliminate or reduce leukosis mortality.

Recently, one man who was raising started pullets had reached the point where there was 20 to 25 percent mortality by 20 weeks of age. He received a new group of birds each four weeks and brooded them on one-half of the bottom floor of a large building. On the other half part of the previous group was housed. At 10 weeks of age chicks were moved to an adjacent building where they were housed until 20 weeks of age.

On this sort of a program he was never able to clean up the premises completely. When mortality had reached 20 to 25 percent he was willing to listen carefully to our recommendations!

Strict Sanitation

The recommendations were very simple: Clean out everything and completely disinfect the houses both inside and out.

This man is now raising the second batch of pullets since changing to our program and, to say the least, is extremely pleased with the results. The first group went to 20 weeks of age with no evidence of leukosis. He has checked with his customers and the pullets are now well into production and have shown no abnormal mortality. This, we feel, is a graphic illustration of the importance of premise infection in the general problem of leukosis.

American Agriculturist, October, 1964

LAND THE BIG ONE!

LOOK! ONLY $12 with purchase of Remington Chain Saw

Compare at $32.00

Garcia MITCHELL ROD and REEL

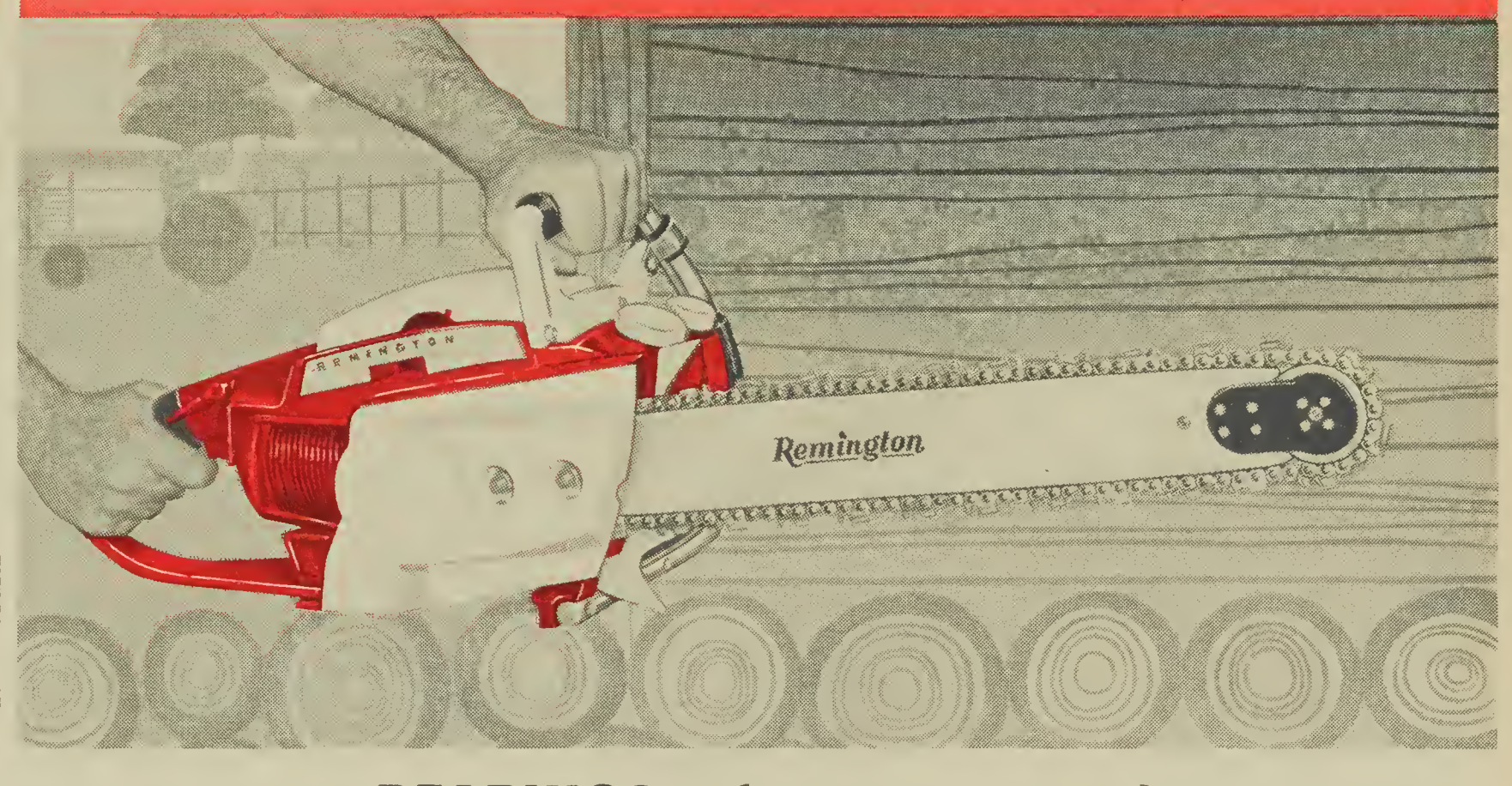
Garcia-Mitchell 304 spinning reel with 6½-foot matching spinning rod. Precision cross-wind gears, wide-range drag. Anti-reverse control. Full bail line pickup. Complete with "service guaranteed for life" policy. Rod is two-piece medium taper, medium light action. Hollow glass construction with cork handle.

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BEARINGS...(not bushings) ...where bearings belong!

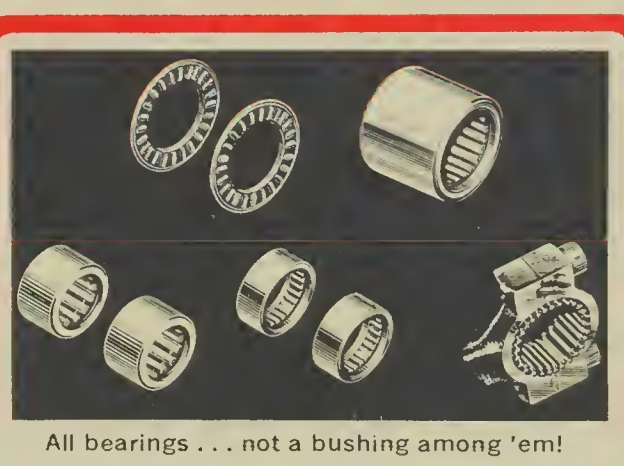
No matter what position a Remington chain saw is used in —upright, on its side, or upside down—the moving parts revolve smoothly on roller bearings—not on a plain bushing or the housing!

Roller thrust bearings, for example, keep the crankshaft free of friction while operating on its side. Many ordinary chain saws use only bushings! And all Remington chain saws also are equipped with roller wrist pin bearings to further reduce friction.

In Remington's patented roller-nose guide bar alone, there are 34 big roller bearings. This not only boosts cutting power up to 20%, but also reduces friction, thus increasing the life of the sprocket and guide bar. The roller nose, of course, is standard equipment at no extra cost.

Supported by roller bearings, the crankshaft is free floating, making it the toughest, longest-lasting crankshaft in any chain saw. If it fails because of defective materials or workmanship any time during the life of the saw, Remington will replace it at no cost!

Remember, almost any new chain saw will do a creditable job of cutting in a test lot. The differences don't show up until later. To save time and money, make sure you get the chain saw with bearings where bearings belong!



All bearings . . . not a bushing among 'em!

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Reserve Grand Champion — Sons L'Ombre Ideal Hyroudelle, Meredith Farm, Topsfield, Massachusetts.

Junior Champion — Brisklea Betty May, Brisklea Farm, Ghent, N.Y.

BULLS:

Senior and Grand Champion — Lessnessock Angus, Meredith Farm, Topsfield, Mass.

Reserve Grand Champion — Lippitt Holly, Lincoln Ave. Associates, Port Chester, N.Y.

Junior Champion — Meredith Baron, Meredith Farm, Topsfield, Mass.

BROWN SWISS

FEMALES:

Senior and Grand Champion — Vine Valley Design's Pauline, Leon Button & Sons, Rushville, N.Y.

Reserve Grand Champion — Queenfield of Ethan Allen, Hillwinds Farm, Greenfield, Mass.

Junior Champion — Concord Replica Concentration, Concord Farms, Woodbourne, N.Y.

BULLS:

Senior and Grand Champion — Welcome In Dorian, Valley Echo Farms, Bergen, N.Y.

Junior and Reserve Grand Champion — Concord Rave's Investigator, Raymond Parker, Woodbourne, N.Y.

GUERNSEY

FEMALES:

Senior and Grand Champion — Deerpath Karl's Gloria, Eleanor F. McJunkin, Cortland, N.Y.

Reserve Grand Champion — McDonald Farms Bright Daisy, McDonald Farms (Cornell University), Cortland, N.Y.

Junior Champion — Dewan Farms, Regal Ellen, Dewan Farms, Oneida, N.Y.

BULLS:

Senior and Grand Champion — High Meadows Moonson, High Meadows Farm, LaFayette, N.Y.

Reserve Grand Champion — Dewan Farms N E Baron, Dewan Farms & L. W. Sheldew & Sons, Oneida, N.Y.

Junior Champion — McDonald Farms J V Gallant, McDonald Farms (Cornell University), Cort-Land, N.Y.

HOLSTEIN-FRIESIAN

FEMALES:

Senior and Grand Champion — Collins-Crest Ivanhoe Triune J, Donald Collins & Family, Malone, N.Y.

Reserve Grand Champion — Elkendale Ivanhoe Topsy, Elkendale Farm, Locke, N.Y.

Junior Champion — Beauty Sears Farm Ilex, Janet Sears, Falconer, N.Y.

BULLS:

Senior and Grand Champion — Alsfarm Dividend Nero, Alsfarm Farm, Jamestown, N.Y.

Reserve Grand Champion — Fide Baray Ilex, Lewis H. & Lois D. Fisk & Neil Demun, Troupsburg, N.Y.

Junior Champion — Riverlea Captain Dick, David E. Orton & Richard Gifford, Sidney, N.Y.

ABERDEEN ANGUS

FEMALES:

Senior Champion — EPA Princess Jet, Elm Place Angus, Avon, N.Y.

Grand and Junior Champion — Meadow Lane Elba 8, Meadow Lane Farm, North Salem, N.Y.

Reserve Grand Champion — Meadow Lane Blackbird II, Meadow Lane Farm, North Salem, N.Y.

BULLS:

Senior and Grand Champion — Pearlstone of Bent Lee, Bent Lee Farm & Myron M. Fuerst, Brent Lake & Rhinebeck, N.Y.

Reserve Grand Champion — Ebony Bardoliermere, Meadow Lane & Old Home Manor, No. Salem, N.Y. & Washington, Ind.

Junior Champion — Rally Bardoliermere 36, Rally Farms, Millbrook, N.Y.

JERSEY

FEMALES:

Senior and Grand Champion — Jester Sleeping Belmont Violet, Diana Ryan, Newport, Rhode Island.

Reserve Grand Champion — Blue Ridge Pierre Penny, Diana Ryan, Newport, Rhode Island.

Junior Champion — Mordale Venture's Trixie, Diana Ryan, Newport, Rhode Island.

BULLS:

Senior and Reserve Grand Champion—Radar Wallflower, Silver Spring Farms, Syracuse, N.Y.

Grand and Junior Champion — Dazzler's Advancer, Diana Ryan, Newport, Rhode Island.

MILKING SHORTHORN

FEMALES:

Senior and Grand Champion — Long Acres Dream's Rena, Jan T.M. Lang, Ballston Spa, N.Y.

Reserve Champion — Pat's Pride Patty, Champion Farm, West Winfield, N.Y.

Junior Champion — Westover Amanda, Westover Farm, Sherburne, N.Y.

BULLS:

Senior and Reserve Champion—

(Continued on next page)

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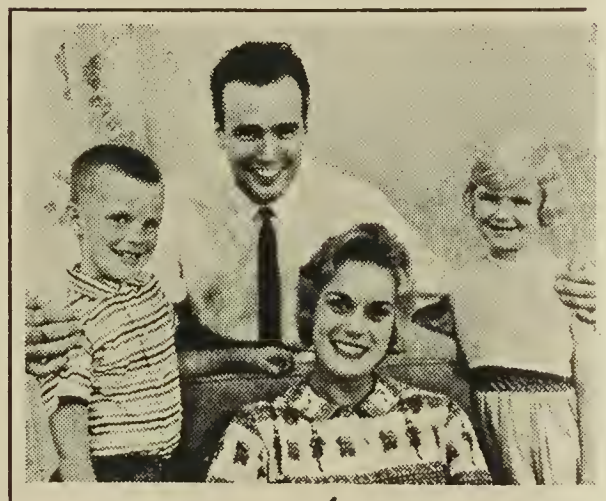
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Donald F. Collins, Malone, New York, at the bridle of his Grand Champion Holstein 4-H cow, at the New York State Exposition. With him is Dennis Hartman, 4-H dairy specialist at Cornell University.

Pinesedge Fair Redman, J.M. & H.M. White, Marathon, N.Y.

Junior and Grand Champion — White's Double Duke, J.M. & H.M. White, Marathon, N.Y.

HEREFORD

FEMALES:

Champion — FLF Zato Heiress, Falklands Farm, Schellsburg, Pa.

Reserve Champion — C U Mischief Miss 45, Cornell University, Ithaca, N.Y.

BULLS:

Champion — K. F. Battle Misch 303, Kiyiwana Farm, Stormville, N.Y.

Reserve Champion — F.L.F. Perfect Mixer 21, Falklands Farms, Schellsburg, Pa.

SHORTHORNS

FEMALES:

Senior and Grand Champion — Glen Cove Clara, Algird F. White & Sons, Ghent, N.Y.

Reserve Grand and Junior Champion — Glen Cove Flossy Martha, Glen Cove Farm, Windsor, N.Y.

BULLS:

Senior and Reserve Grand Champion — Glen Cove Masters, Glen Cove Farm, Windsor, N.Y.

Grand and Junior Champion — Glen Cove Principal, Glen Cove Farm, Windsor, N.Y.

SHEEP

Exhibitors of champion rams in the various breeds were:

Cheviot — Brooklea Farm, Bath, N.Y.; Columbia — Rolling Fields Farm, West Dummerston, Vt.; Corriedale — Timothy Fitzpatrick, Wayland, N.Y.; Dorset — Twin Pine Farm, Nichols, N.Y.; Hampshire — T. Gordon Bautz, Futherville, Md.; Montadale — Paul J. Freeland, Canisteo, N.Y.; Oxford — Sandra Mather, Marcellus, N.Y.; Rambouillet — Twin Pine Farm, Nichols, N.Y.; Shropshire — Knobby Knoll Farm, Ulster, Pa.; Southdown — Jack Baird, Spencerport, N.Y.; Suffolk — East View Farm, Pavilion, N.Y.; Tunis — Brooklea Farm, Bath, N.Y.

Exhibitors of champion ewes in the various breeds were:

Cheviot — Brooklea Farm, Bath, N.Y.; Columbia — Rolling Fields Farm, West Dummerston, Vt.; Corriedale — Timothy Fitzpatrick, Wayland, N.Y.; Dorset — Lauren F. Allen, King Ferry, N.Y.; Hampshire — Van Vleck Farm, Woodbury, Conn.; Montadale — Dr. F. E. Lindblom, Jamestown, N.Y.; Oxford — Ann Lucksinger, Marcellus, N.Y.; Rambouillet — Twin Pine Farm, Nichols, N.Y.; Shropshire — Richard Cobb, West Hanover, Mass.; Southdown — W. G. Carpenter & Sons, Germantown, Md.; Suffolk — East View Farm, Pavilion, N.Y.; Tunis — Brooklea Farm, Bath, N.Y.

Owner of the champion wether was Twin Pine Farm, Nichols, N.Y.; champion pen of three wethers, Shamrock Farms, Wayland, N.Y. Champion Market Fleece of Show was exhibited by Zautner Farm, Brewertown, N.Y.

SWINE

Championship ribbons in the swine breeds were awarded as follows:

Berkshire — Grand champion boar, Franlee Farms, Victor, N.Y.; Grand champion sow, Ken Wiley, Penfield, N.Y.

Duroc — Grand champion boar and sow, Happy Acres Farm, Waterloo, N.Y.

Hampshire — Grand champion boar, David Gillett, South Byron, N.Y.; Grand champion sow, Ralph Blick, Williamson, N.Y.

Landrace — Grand champion boar, Clinton Prison, Dannemora, N.Y.; Grand champion sow, Great Meadow Corr. Institute, Comstock, N.Y.

Poland China — Grand champion boar, Richard Crye, Avon, N.Y.; Grand champion sow, Clair Hartman, Gratz, Pa.

Yorkshire — Grand champion boar and sow, Umbrian Farms, Lafayette, N.J.

Champion barrow — Ralph Blick, Williamson, N.Y.

CARCASS

Steers — Grand champion, Rally Farms, Millbrook, N.Y. (Sold to Grand Union for $1.35 per pound.)

Reserve champion — Mr. and Mrs. Fayette Binck, Averill Park, N.Y. (Sold to P & C for $1.00 per pound.)

Lambs — Grand champion, William Fitzpatrick & Son, Wayland, N.Y. (Sold to Grand Union for $3.00 per pound.)

Reserve champion lamb, John Mulligan, Belmont, N.Y. (Sold to P & C for $1.25 per pound.)

Swine — Grand champion pork carcass, Charles Sinclair, Pavilion, N.Y. (Sold to Tobin Packing Company, Rochester, for $1.40 per pound.)



Only Wright Saws are Ruggedized
Built to take the beating a chain saw has to take — and then come back for more. Ruggedized from stem to stern. Careful quality-control inspections make the difference, plus performance-testing of every saw at the factory. That's why Wright saws stay on the job and out of repair shops. Service records prove it!

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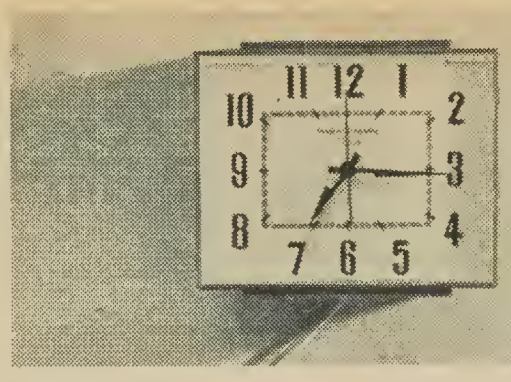
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Ellis Tiger Company, Gladstone, N. J.
Farmer's Auto & Equipment, Mahwah, N. J.
Farmers Co-op Association of N. J., New Brunswick, N. J.
Farmers Co-op Assn. of N.J., Trenton, N .J.
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Koenig Hardware Inc., Linden, N. J.
Lawnmower Rebuilders, Plainfield, N. J.
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Steven Willand, Jr., Montville, N. J.
Joseph Szczepanik, Englishtown, N. J.
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Valley Service Center, Hopewell, N. J.
A. & F. Tool Rental, Rosedale, L.I., N. Y.
Agway Home & Garden Wholesale, Hicksville, L.I., N. Y.
Alcan Machinery & Equipment, Corona, L.I., N. Y.
Allen Brothers, Pound Ridge, N. Y.
Amityville Feed Supply, Amityville, L.I., N. Y.
John Beplat Hardware, Flushing, N. Y.
Commark Corp., Hicksville, L.I., N. Y.
The Country Store, Cross River, N. Y.
Kingman Hardware Co., Inc., Hudson, N. Y.
Malvese Mower & Equipment, Hicksville, L.I., N. Y.
Pine Plains Sales Corp., Pine Plains, N. Y.
Radichel Machine Shop, Amsterdam, N. Y.
Arthur J. Rauft, Bay Shore, L.I., N. Y.
Rowe-Rutledge, Wappingers Falls, N. Y.
J. C. Ryan & Sons, Inc., Yonkers, N. Y.
Steiger's Lawnmower Shop, Lindenhurst, L.I., N. Y.
Wagner's Farmingdale Feed, Farmingdale, L.I., N. Y.
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Bored youngster on long motor trip: "Why don't you let Mom drive. It's more exciting."



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M; 12:15 and 6:15 P.M., over these stations.

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Jamestown	WJTN-FM	93.3 mc.
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Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
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Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.			
Olean	WHDL	1450 kc.			
Utica	WBVM	1550 kc.			

Northeast Radio Network

Ithaca, New York



A NEW ANGLE

by Amos Kirby

New Jersey Editor

FORMER STATE SENATOR Wesley Lance of Hunterdon County has injected a new angle into the redistricting of the New Jersey Legislature. The Lance proposal, now before the courts of New Jersey, and heading to the U. S. Supreme Court, is based on the fact that this is one of the original thirteen states, and our State government was formed before the Constitution of the United States was established. Mr. Lance is the official spokesman for the New Jersey Senate, with authority to carry the matter all the way to the Supreme Court.

I have a letter from Congressman William Cahill of Camden stating that he has introduced in Congress a resolution to amend the Constitution of the United States to guarantee the right of any State to apportion the membership of one house of its legislature on factors other than population.

This is a matter that will affect every rural county; if New Jersey were redistricted according to the U. S. Supreme Court decision it would give Essex, Hudson and Bergen counties complete control of the Legislature.

Lessons from Drouth

The 1964 drouth that has hit many areas of New Jersey has shown many growers how to live and operate under what might easily be called semi-arid conditions. With a near 10-inch moisture deficiency up to the last week in August, growers of most fruit and vegetable crops have come through with better yields than was thought possible. Irrigation has proved that crops can come through a dry growing period provided water is available at certain critical periods in their growth. Water — This year has shown that much of South Jersey probably has underground water supplies never before realized. There are many areas in the lower part of the State that have had only one rain (on July 7) from the last week of April until near the end of August. Farms without irrigation have suffered and crop losses have been heavy; those with water properly used have come through with at least 75 percent of normal yields.

The Tomato Harvester

New Jersey growers have had a look at the new tomato harvester. Like the asparagus harvester, it is still in the development state; but it is here, and those who are working frantically on new varieties admit that machine harvesting will be perfected before they have varieties adaptable to mechanical picking.

The harvester is much like the potato harvester; it takes everything in one trip across the field. The problem is to develop varieties that mature the bulk of the crop at one time. There are those who state that it can never be done, but in view of what is being accomplished in other fields, one should reserve opinions for the present.

Asparagus — On a recent field day at the New Jersey Experiment Station we saw a revised asparagus harvester, and wish to report that a lot of progress has been made in the past year in perfecting the machine that will be used in the next few years.

Here and There

The Federal Trade Administration is taking a close look at the methods used by asparagus processors in establishing grower prices.

Thomas Moore, general manager of the New Jersey Agricultural Marketing Association, an affiliate of the Farm Bureau, informs me that growers and processors are being interviewed on all angles of the asparagus contract prices. The investigation is part of a nationwide study of the methods used by processors in establishing contract prices.

Mr. Moore and C. H. Fields of the Farm Bureau, along with most growers, are convinced that producer prices of many crops grown under contract fail to take into consideration the higher costs borne by growers.

Purely Personal

Paul Taylor, marketing coordinator with the New Jersey Department of Agriculture, advises us that Jack Hendrickson, Middletown, Monmouth County, was the first member of the Certified Farm Markets to erect a windmill as the identification of the location of a certified farm market. To give full credit for the windmill idea, we are also informed that it originated in the State Department of Agriculture in 1960.

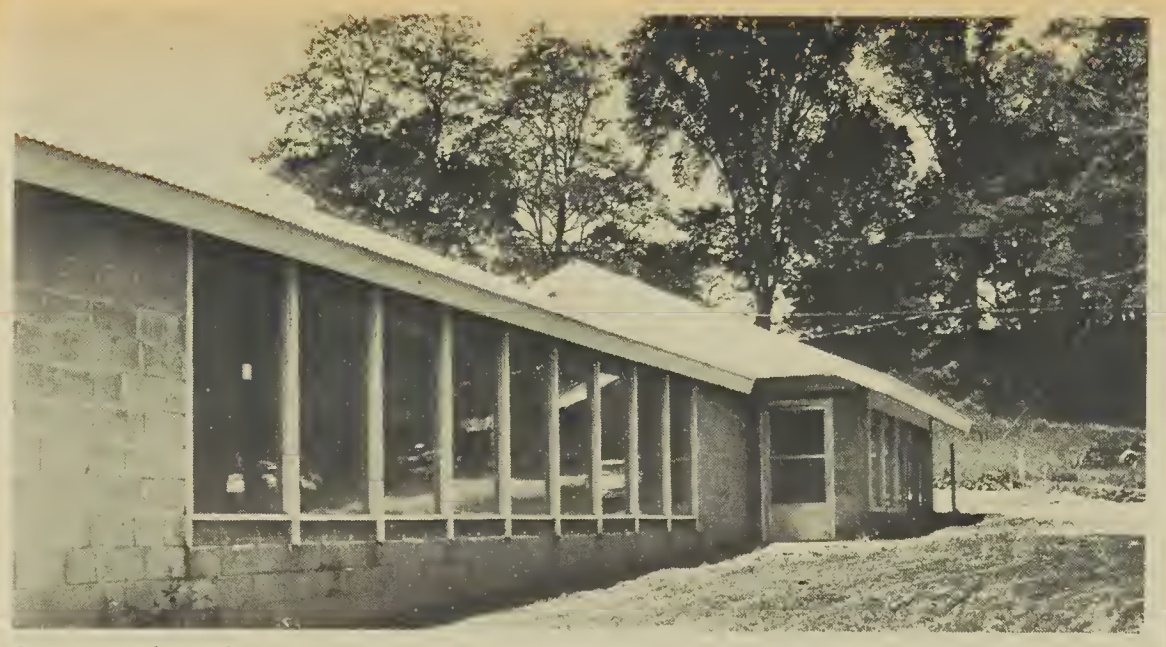
Dr. Firman E. Bear — New Jersey's leading authority on soil and water conservation, Dr. Bear (of the Experiment Station at New Brunswick) is being continued as a member of the USDA advisory committee on soil and water conservation.

C. H. Fields — Speaking for the Board of Directors of the New Jersey Farm Bureau on the recent increase in bread prices, Mr. Field advises consumers not to blame the bakers but to put the full blame on Secretary Freeman for his alleged manipulation of the wheat program. This Mr. Freeman denies.

Richard Lorenzo — At the recent convention of the New Jersey Future Farmers of America, Richard Lorenzo, Newton, was elected as the State's Star Farmer for 1964.

Winner — The Belvidere chapter of FFA was one of the four national winners in a competition sponsored by the American Institute of Cooperation. Members of the team were: Paul S. Good, Jr., Belvidere; Richard S. Hartung, Roxbury; and Sidney Alpaugh, Jr., Blairstown. Harry Schneiber is vocational agriculture instructor at the Belvidere High School.

American Agriculturist, October, 1964



Cows at the Blanchard farm are milked in this well-lighted parlor; bulk tanks are in section behind door.

MILKING PARLOR

We like our milking setup where we can milk 55 cows an hour in a six-in-line parlor. Our 115 cows on the main farm are in stanchions, so we turn them in groups into a holding area with a capacity of 30 to 35 cows.

There is plenty of light to work by — nine 4' x 6' insulated windows along the side of the parlor, plus three large fluorescent lights overhead. We also have 1500 watt electric heating units for greater comfort in the parlor.

We feed cows grain in the parlor, but for those who are milking especially heavy we supplement that with more grain in the stanchions. Most of the cows, though, really have learned to stack away grain in the parlor!

We built the milk room with lots of light too — five 4' x 5' insulated windows. Two bulk tanks — a 1,000 gallon and a 300 gallon — hold milk; the first is a direct-expansion cooling unit and the other an ice bank. We built



Stewart Blanchard hoses down stalls in the parlor.

everything expecting to have to conform to the U.S. Public Health Service regulations.

We have just built a bunk feeder for greenchop, with a cement strip 10' wide on each side of the bunk that is 120' long. Looking ahead, we would like to put up another big silo and carry corn silage into the summer. — *Stewart and Lee Blanchard, Smyrna, New York*



HER DAILY DIET

Cornell Aristocrat Co Emma seems a little skeptical as she looks over her average daily intake of 31 pounds of hay, 25 pounds of silage, and 15 pounds of grain. With her, left to right, are: Paul Dean, herd superintendent; Professor John K. Loosli, head of the animal husbandry department; and Professor George W. Trimberger of the same department.

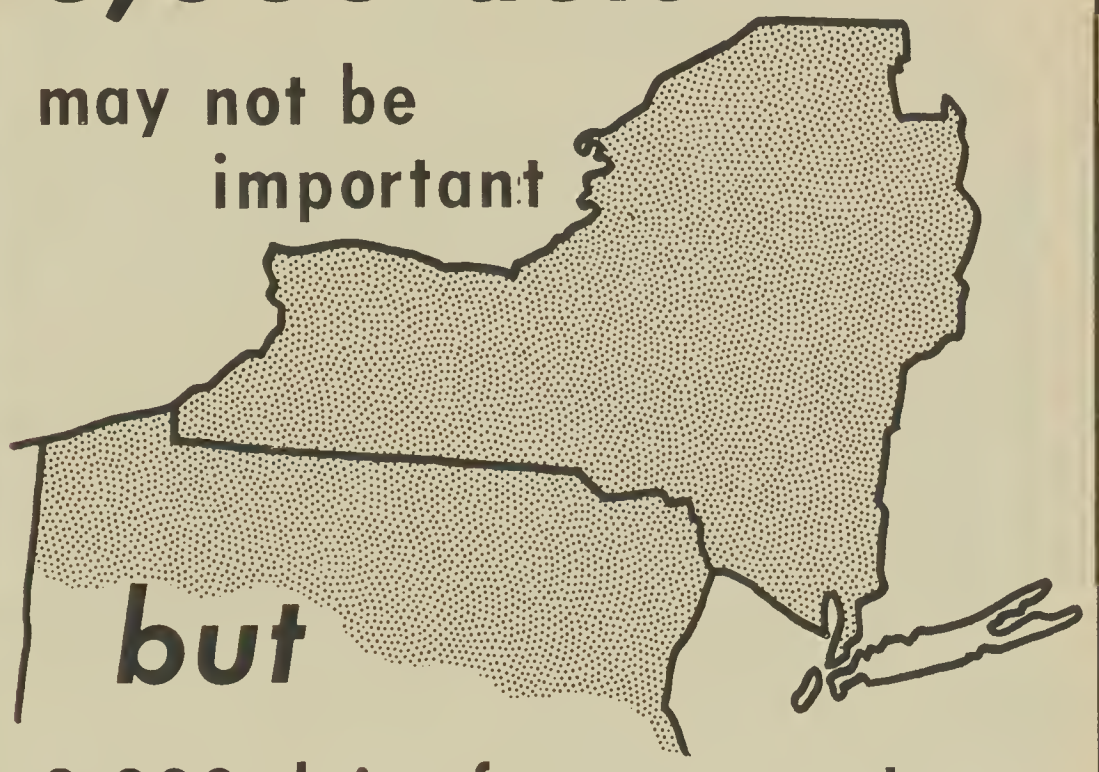
It was while the scientists were proving that it doesn't matter how many times a dairyman feeds his cows each day that Emma was doing some proving of her own. She became the first cow to produce more than 1,000 pounds of butterfat under experimental conditions of a year's time — and 22,550 pounds of milk; at the peak of her production she was giving 100 pounds a day.

Meantime, Emma and 59 other high-producing Holsteins were divided into two groups. Half were fed silage once daily and hay once daily; the others were fed silage twice a day and hay five times each day. The experiment proved that there was no significant difference in forage intake between the two groups, nor any significant difference in milk production.

"In other words," says Professor Trimberger, "it doesn't seem to matter if you feed a cow once a day or five times a day, providing you give her all she wants to eat!"

8,000 dots

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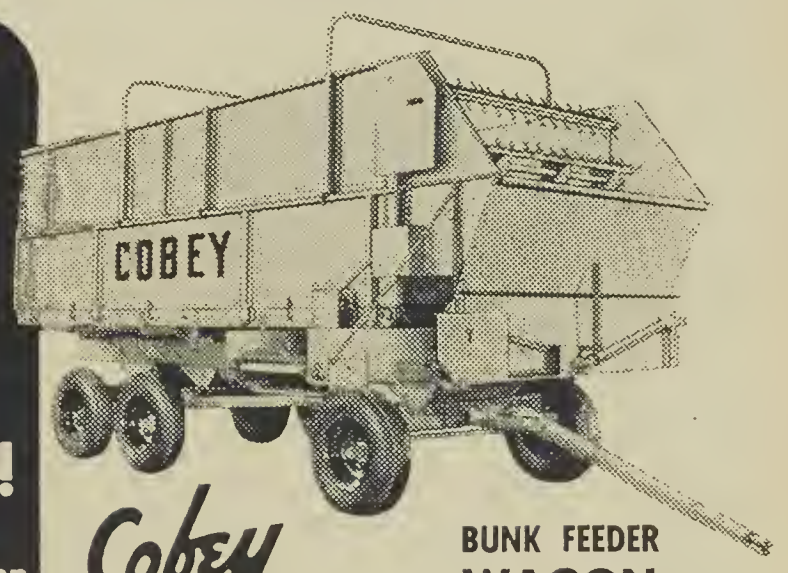
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Furthermore, the Cobey 51-BF can haul and unload shelled or ear corn, chopped corn stalks, wheat, oats, grass forage - or you name it. The Cobey Bunk Feeder Wagon is always ready to out-perform all others! Write for full information.

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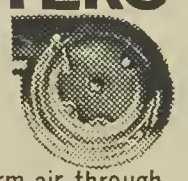
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Ed (left) and Bill Laukaitis set cabbage plants as Bill Jr. drives the tractor.

CABBAGE SPECIALISTS

THE LAUKAITIS FAMILY at Bridgewater, New York, has been growing cabbage for 40 years. Ed and his brother Bill now carry on the family tradition, growing 35 acres this year for sale at top prices to a variety of outlets.

Ed is the marketing man, going often to New York City to contact men who buy for the fresh market and for export. He also sells to the restaurant trade and to a supplier having a U. S. Navy contract. Delivery is made to New York in trucks owned by the Laukaitis brothers.

Two Storages

There are two storages on the farm, one built as a potato storage. The newer storage is insulated and ventilated with a 36" fan powered by a 1/2 H.P. electric motor. Ed says, "We sold 200 tons last fall right out of the field, but you've got to have storage to handle any volume of cabbage. In the 1963-64 season we sold cabbage for eight months beginning about September 1 and ending up April 20." He figures 20-25 tons per acre is a good yield.

Seed is started in the seed bed about April 25. Cabbage is grown only every fifth year on any field, so Ed and Bill swap land on an annual basis with other farmers in the area to get enough acreage. Hydrated lime is used to sweeten the soil where necessary.

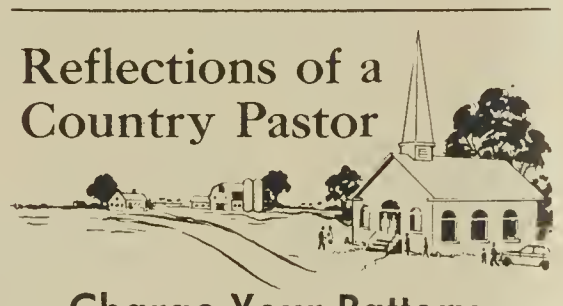
Fertilization (800 to 1,200 pounds per acre of 8-16-16) is done with a lime sower and dragged in before planting. After plants have been set about three weeks, worms are usually visible, and a schedule involving 4 to 5 sprays is begun. Endrin worked fine in years past (finishing off with parathion), but endrin has been pulled off the recommended list due to possible residue. The crop is cultivated three times and hoed by hand once during the growing season.

Use Pallet Crates

For harvesting, migrant labor is scarce because of the cold weather, so some local people are hired. Pallet crates are used, each holding 1,200 pounds. These crates are left on the truck and one side slat removed. It is filled to the opening, then the slat is put back on and the crate filled to the top. This helps to prevent rough handling and bruising, as well as avoiding the problem of lifting loaded crates onto trucks in the field.

A heavy duty front end loader mounted on a farm tractor unloads crates at the storage and is able to stack them four high (Ed and Bill prefer three high). Most of the cabbage is left in the pallet crates until ready for shipment, although some is bulk stored in bins in the older storage.

Reflections of a Country Pastor



Charge Your Battery

NO MATTER how reliable the make, or how dependable the guarantee, your car battery needs recharging. You may have a dead battery on your hands, or a stalled motor. So, you have that sparking apparatus inspected regularly. For effective performance it has to be done.

What about your soul's battery? Does it get regular attention? Do you "hook it up" to some recovery source? Maybe it is rather feeble; let me suggest a few resources of soul power:

One easily-available source is books and periodicals. You can get stimulating reading, mental and spiritual nourishment from books your pastor might loan you. Even the daily papers have spiritual food for those who will assimilate it. Then there is the Bible — how often do you open it? It's not just a charm!

Another source is meditation and prayer. Many of the world's finest personalities admit that this source of strength renewal is effective, especially in crises.

Of course you have thought of the house of worship. Christian fellowship in worship results in an over-plus of moral and spiritual power. It is especially effective if you translate your inspiration into good works or deeds! You know this will increase your moral efficiency.

Sounds simple, I know — but try it! — Arthur Moody

American Agriculturist, October, 1964

AA Livestock Mart



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FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

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"USED CONVEYOR BELTING" Rubber covered—like new, all sizes—all plys. Phone or write: E. L. Ashmus Belting Company, 6038-49th Ave., Kenosha, Wisconsin, OL-2-4596.

DEPRESSION PRICES—We sell cheap. Save 75% off new and used tractor parts, crawlers, wheel tractors, 190 makes, models. Catalog ready. Send 25¢. Surplus Tractor Parts Corp., Fargo, North Dakota.

NYLON AIRCRAFT TIRES for farm use, 14-15-16 inch. Dealer inquiries invited. Write Kepler Supply, Fayetteville, N Y.

ENSILAGE LEVELER

Zimmerman's self-propelled blowerpipe, attached, light weight mixer, retail $75.00.

Dealers wanted
Distributor, Joseph Zimmerman
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Terre Hill, Pa.

FREE 1965 Parts Catalog for all tractor models and farm implements. World's largest stock of new and used parts. Tremendous savings. Central Tractor Parts Co., Regional Market, Syracuse, New York or Des Moines, Iowa.

FARROWING CRATES—All steel with creep panels $22.95. Free Literature. Dolly Enterprises. 180 Main. Colchester. Ill.

SPLIT ROCKS—2000 degree kerosene torch, 99 practical uses. Destroys stumps, sprays, dries concrete. Free literature, Sine, AA2, Quakertown, Pa.

COBEY—FOX- MC NUFFIELD — Versatile Farm Equipment—Cockshutt parts, new & used. Used machines all kinds. We deliver. Ingersoll Farm Supply Inc., Martinsburg, N.Y. Phone—Lowville 85.

LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters — extra low prices. Box S-104, Unadilla Silo Co., Unadilla, N.Y.

WANTED—STONEPICKER. W. L. Canaday, East Greenbush, New York.

1960 M. Moline self-propelled picker-sheller, very good condition, $2950. 4 stall Surge milking parlor complete with pipeline, automatic washer, $1800. A-C, HD5 Bulldozer, $3200. Call Harmony-Dale Farms, Phillipsburg, N.J. 859-2616.

AMIDEN PORTABLE SAW MILL, belt, saw and power plant. Vaughan Decker, Kerhonkson, N. Y.

ONE NEARLY NEW low bed International potato digger with transmission, on rubber. S. W. Reynolds, R.D. 1, Shelburne Falls, Massachusetts. Phone: 625-6574.

WANTED—Corn Head for International 141 combine. Victor Kjar, Waterloo. N.Y.

PLANTS

STRAWBERRIES, Raspberries, Blueberries, Blackberries for fall planting. Latest and best including Midway, Frontenac, Fortune, Fulton-Ozark Beauty everbearing strawberries. Latham, Earlired, Durham raspberries. Write for free catalog describing 70 small fruit varieties. Walter K. Morss & Son, Bradford, Mass.

NURSERY STOCK

SENSATIONAL APPLE DISCOVERIES—Exclusive patented Starkspur Golden Delicious and famous Starkrimson! New spur-type trees bear years earlier. Also Dwarf Trees for giant-size Apples, Peaches, Pears for backyard and orchards. Stark-Burbank Standard Fruit Trees, Roses, Shrubs. Color-photo catalog free. Stark Bro's. Dept. 30305, Louisiana, Mo.

1000 NURSERY ITEMS—Catalog. Evergreen and Tree Seeds. Seedlings, Baby Evergreens, Fruits, Ornamentals, Plastic Pots, Supplies, etc. Mellinger's North Lima 42, Ohio.

PEACH, PLUM TREES—low as 20¢. Cherries, pears, apples, nut trees, strawberries, blueberries, dwarf fruit trees. Grapevines 10¢. Shrubs, evergreens, shade trees, roses 25¢ up. Quality stock can't be sold lower. Write for free color catalog and $2.00 free bonus information. Tennessee Nursery Co., Inc., Box 1, Cleveland, Tenn.

BABY EVERGREENS, TRANSPLANTS. List free. Neuner's Nursery, Eicher Rd., Pittsburgh, Pa. 15237.

BLUEBERRY BUSHES, Cultivated 18″-30″ Fruit Bearing, 6 for $5.95. New Varieties $3.00 each. Postpaid. Morningbrook, Monson, Mass.

CANADIAN HEMLOCK—50 for only $12.95, 100 for $18.95. Sturdy, well rooted 3-yr. 8″ to 12″ plants. Ideal for background or hedge planting. Sun or shade. Shear to desired height. Postpaid. No C.O.D. Musser Forests, Inc., Box 83-JC, Indiana, Pa.

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400,000,000 Acres Government Land available in 25 States. Some low as $1.00 Acre. 1964 Report. Send $1.00 National Land 422 AG10 Washington Building, Washington, D. C.

GOVERNMENT LAND now available in more than 25 States. Millions of acres as low as $1.00 per acre. For latest report send $1.00 United States Real Estate (Dept. 1), Post Office #377, Fort Lee, N.J.

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GOVERNMENT LAND AVAILABLE throughout 50 States low as $1.00 acre. "Your Government Land Opportunities" plus "Land Opportunity Digest" with current listings, send $1.00. Land Disposal, 2230-BV Wisconsin, Washington, D. C. 20007.

LARGE ACREAGE, Country Home, Christmas tree plantation. George Brown, Malone, N.Y.

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MAKE BIG MONEY taking orders for Stark Dwarf Fruit Trees. Everybody can now grow Giant Size apples, peaches, pears in their yards. Also Shade Trees, Shrubs, Vines, Roses, etc. Outfit free. Stark Bro's., Desk 30205, Louisiana, Missouri.

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BLACK WALNUTS, Pecans, English Walnuts, Brazils, Cashews, Sassafras, Pepper, Cinnamon $1.25Lb. Dried Mushrooms $3.00Lb. Peerless, 538AA Centralpark, Chicago 60624.

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PLASTIC POSTED—Land Signs. Durable, inexpensive, legal, free sample. Minuteman, Stanfordville, New York.

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NO TRESPASSING SIGNS — free sample, prices. Rural Press, Kenoza Lake, N.Y.

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SILOS, SILO UNLOADERS—barn cleaners. Nold Farm Supply, Rome, N. Y.

DON'T BE BLUE because of high silo costs. Get free folder about economical, durable, attractive Corostone Concrete Stave Silo, related equipment. Box 220-A, Weedsport, N.Y.

GRANGE SILOS lead in long-term, low-cost storage of haylage, silage. Write for brochure, Grange Silo Company, Department A, Weedsport, N.Y.

STAMPS & COINS

FREE POLISH SET to approval applicants. Reasonable prices. Rockingham Stamp Company, Box 49, Chester, New Hampshire.

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GRAND CIRCLE MEXICO TOURS—22 days, Jan. 15 and Feb. 26, 1965, only $399. Really see Mexico. Our own modern bus. Reserve early. Send for literature. Shanly International Corp., 528-A Blue Cross Bldg., Buffalo, N.Y.

WANTED TO BUY

WANTED — Old books, letters, magazines. Skutel, Box 265, Southport, Conn.

WOMEN'S INTEREST

QUILTPATCHES — 200 $1.00. Buttons 800 $1.00. Catalogue, Schaefer, Drummondville, Quebec.

FREE NEEDLECRAFT CATALOG! Embroidery, Knitting, New Ideas! Merribee, Dept. 677, 2727 West 7th Street, Fort Worth, Texas.

WEAVE RUGS—Make Good Profits—No experience necessary, Free Catalog, sample card and low prices on carpet warp, rug filler, looms, parts, inexpensive beam counter. If you have loom—advise make, weaving width please. OR. Rug Company, Dept. 9480, Lima, Ohio.

INTESTINAL ELIMINATION DEVICE—naturally relieves painful strain—piles. Lasts lifetime. $6.81 Postpaid. Dr. Charles Hudson, Drawer 680, Easton, Pa.

BEAUTIFUL AMERICAN HANDMADE — curved paring knife, maple handle, $1.65 postpaid. Free catalog. Money back guarantee. Webster House, 205 Dickinson Rd., Webster, N.Y. 14581.

The rain-makers

(Continued from page 10)

pH is between 4.8 and 5.2, inhibiting the incidence of scab. The Russett Burbank, though, doesn't seem to have a scab problem; in fact, Skip reports that a higher pH seems to encourage a higher specific gravity and the dark brown netting so desirable for this variety.

A tool bar fitted with deep-tillage cultivating attachments is used, normally three times before the vines cover the ground between rows. At the last cultivation, high hilling is done to prevent sunburned tubers. High hilling dries out the ground faster than more moderate hilling, but irrigation takes care of this — another "fringe benefit" of extra water. Sinox PE and 2,4-D have been used for weed control, but not as a general program.

Spray Program

High pressure (400 to 600 lbs.) spray rigs, applying 150 gallons per acre of water, move in to fight bugs and blight. Sevin leads off as the bug killer, followed by Thiodan when aphids and leafhoppers begin to invade. Maneb is used on some fields as a fungicide, Polyram on some others. MH-30 goes into the spray tanks at about full bloom to inhibit sprouting of tubers in the future after they've gone in storage.

Vines are killed slowly to get quality potatoes with high specific gravity. Roto-beating high enough to remove some leaves comes first, then a vine killer spray (sodium arsenite) a week later. Sometimes vine killer is applied twice, the first spray weak enough so it won't completely kill vines. "This is more like the natural ripening process," says Skip. "Plant food in the vines moves into the tubers and hikes the specific gravity — important to both the chip and fresh market buyers."

Spud Harvest

Potatoes are hoisted out of the ground with a two-row digger, picked up by hand and spilled — not dumped — into 30 bushel pallet boxes (there are 2,100 such boxes on this farm). Industrial fork lifts on the back of tractors put the boxes on trucks for the ride to storage right on the farm.

Normally, spuds are sold from September 1 to the following July 1. "We have to sell potatoes steadily," Skip says. "We need to keep our help working and there's really no advantage in trying to make a killing on a temporary high market." The New York State Potato Growers Cooperative handles most of the marketing; whatever are sold wholesale at the farm are reported to the Co-op and membership payments made on them. Most are sold in packages carrying the Co-op's Blue Tag Premium brand and bearing the farm name. Skip is a Co-op director and speaks highly of its services.

Management of an outfit this size is a demanding task of awesome proportions. To be at the right place at the right time with the right items requires considerable planning and Spartan attention to the job at hand. "If you're calling me by phone," Skip remarked casually as I left, "make it before 6:30 in the morning or after 9 at night." Seeing those endless — and profitable — bushels of first-class eating roll out of the ground each autumn, though, makes it all worth while.



Participating in the dedication of Camp Arnot, a conservation camp built by sportsmen's groups, were, left to right: Dean Charles E. Palm, New York State College of Agriculture; Lyman H. Hammond, Binghamton, representing the Foundation; Professor Gustav A. Swanson, Cornell's conservation department; J. Victor Fitchlee, Middleport, New York State Conservation Council; and John L. Stookey, Lockport, State 4-H agent-at-large and former Niagara County 4-H agent.

A section of the Arnot Forest (a red pine plantation planted by him 28 years ago) has been dedicated to the memory of the late Professor A. B. Recknagel. It will be used for research and public education.

Food Processing Center — Now under construction at Horseheads, New York, is a new Quaker Maid food processing center which will cover 104 acres. Plans call for the completion late in 1965 of the world's largest prestressed concrete building (32 to 35 acres under a single roof) and the transfer of Quaker Maid manufacturing operations from plants at Brooklyn and Brockport, New York.

Part of the food processing center will be used for the manufacture of cans by The Great Atlantic & Pacific Tea Company. More than 700,000 cans a day will be turned out, beginning early in 1966.

Award — The Medallian Award of the American Grassland Council has been presented to Dr. Howard B. Sprague. Dr. Sprague recently retired as head of Pennsylvania State University's Agronomy Department, and is president of the American Society of Agronomy.



HOWARD B. SPRAGUE

Population Reports — Each county agent in New York State has available a county report on population prepared by the Department of Rural Sociology at Cornell University. These reports, costing 25 cents per copy, can be very useful to local leaders planning a variety of programs.

Bankers Join Program — Bankers in twenty New York cities and villages have joined 150 livestock farmers, 19 agricultural businesses, 11 cattle dealers, 70 farm cooperatives and the veterinary medical profession in attacking animal diseases causing losses to farms in their counties. At Cornell University the research is to find new and improved methods of disease diagnosis and control. A combination vaccine against five dairy cattle diseases is being tested, and additional research deals with calf diseases, winter dysentry, mastitis, hog cholera and respiratory disease of beef cattle.

WOMEN'S INTEREST

QUILT PIECES, Velveteen, 7 pounds $2.00 postpaid. Bromberg, 1558 Minford Place, Bronx 60, New York.

$CASH Making Marble Jewelry, Flowers. Catalog 10¢. Flocraft, Farrell, Penna.

YOUR CHURCH OR GROUP can raise $40.00 and more, easy and fast. Have 10 members each sell only ten of my lovely colorful Merry Christmas Table Covers, $1 each. Keep $40.00 for your treasury. No money needed. Write Anna Wade, Dept. 9AW, Lynchburg, Va.

QUILT PIECES! Percale prints! 1¼ lbs. $1.00. 3¼ lbs. $2.00. Postpaid. Ward Gould, 92A North, Medfield, Mass.

EVERY FAMILY Needs This, Natural Color Everyday Assortment 15 different greeting cards—in breathtaking colors $1.25. M. Mitchell, 80 Topstone Drive, Danbury, Connecticut.

WOOL

SEND WOOL TO US for beautiful, warm blankets. Free literature. El Dorado Woolens, Inc., Eldorado, Texas.

TOO LATE TO CLASSIFY

FEEDER CALF SALE—Nov. 14, at 12:30 PM. Seven miles north of Rome, N.Y., just off Rt. 26 on Stokes, Westernville Rd.—Arthur Schallenburg farm. Stock sold according to grade, breed, weight. Sale sponsored by Mohawk Valley Beef Sales, Inc.

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Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

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This substance is now available in *suppository* or *ointment form* under the name *Preparation H®*. At all drug counters.

BEGIN CHRISTMAS IN OCTOBER





7411. Alternate bands of knit and purl for glamorous stole. Make of mohair; brush for furry look. Directions for stole. 25 cents.

7247. Two dramatic bird panels to embroider in singing colors. 8 X 21-inch transfers; color chart; directions. 25 cents.

7023. Crocheted wardrobe for a teen-model doll. A perfect gift for Christmas. Directions for 11-1/2 inch doll ONLY. 25 cents.

7365. Pillbox or beret - both are easy to knit of mohair. Brush for furry look. Directions for 2 hats, all sizes. 25 cents.

988. Cozy shoe socks for tots to fill the Christmas stockings. One flat piece plus cuff for each. Sizes 4 to 12 included. 25 cents.

551. Join crocheted squares for jacket. Directions for sizes 32-34; 36-38; 40-42; 44-46 included. Squares 4-1/4 inches. 25 cents.



7365















979. Cover bottle caps with sturdy crochet; join for unusual hot-plate mats. Directions for two decorative designs. 25 cents.

7489. Snoopy the dog is made of 2 cotton socks, features of felt. Pattern with face drawn; easy directions. For tots, teens. 25 cents.



















7401. Cozy knee socks to knit on 2 needles. Directions for small (2-4); medium (6-8); large (10-12) included in pattern. 25 cents.

723. Transfer of 20 embroidery motifs in varied sizes, varied stitchery. Trim linens, aprons and tots' bibs; make gifts galore. 25 cents.

7030. Bold, beautiful tiger - fun to make of sturdy fabric. Hassock for tots and mascot for teens. Pattern and directions. 25 cents.

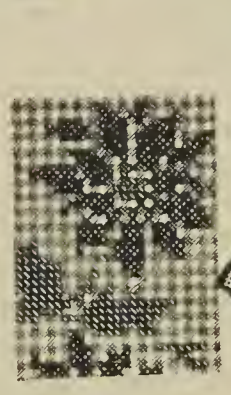
840. Gay, thrifty potholders - perfect for gifts. Transfer and directions for 10 holders - 2 to crochet, 8 to embroider. 25 cents.

677. Match towels, scarfs, pillowcases with flower motifs. Transfer of 2 of each design, 4 X 12 inches. Directions. 25 cents.

7471. Christmas aprons of checked gingham. Follow checks for cross-stitch trim. Charts, directions for 2 aprons. 25 cents.



7471





Needlework Patterns are 25¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, 257, Needlework Service, P.O. Box 162, Old Chelsea Station, New York 11, N. Y.

First time ever! 200 Top Needlecraft Designs plus TWO FREE PATTERNS for fashion's favorite knitted hats printed right in our big 1965 Needlecraft Catalog. See fashions, toys, accessories to knit, crochet, sew, quilt, weave, embroider. Send 25¢.



'round the kitchen

with ALBERTA SHACKELTON

HALLOWEEN MONTH is here, so be sure you're prepared for the ghosts, goblins, and witches that will be ringing your doorbell, come Halloween night. This year let the young fry in your house fix some of these easy-to-make "Spooky treats" to drop into the gay paper sacks these scary creatures will have.

CHOCOLATE GOBLINS

1 6-oz. package chocolate pieces
1/4 cup confectioner's sugar
1/3 cup chopped toasted almonds
2 tablespoons butter
2 cups Wheaties

Melt chocolate over hot water and stir in the rest of the ingredients. Form into balls and place on a baking sheet. Chill in refrigerator at least 1 hour, or until balls hold their shape. Makes about 3 dozen.

JACK-O-LANTERNS

1 cup sugar
1/3 cup water
1/3 cup corn sirup
1 teaspoon salt
1/4 cup butter
1 teaspoon vanilla
7 oz. Cheerios

Mix sugar, water, corn sirup, salt, and butter and cook to 250 or until a few drops form a hard ball when dropped into cold water. Remove from heat, stir in vanilla, and pour in a thin stream over the Cheerios in a large bowl. Stir constantly to mix well.

Grease hands and form cereal mixture into pumpkin shapes. If balls pull apart, reshape occasionally until they harden. Use raisins for eyes and nose and corn candy for teeth. Makes 15 pumpkins.

PEANUT BUTTER TREATS (U.S.D.A.)

2 cups white corn sirup
2 cups peanut butter
3 cups dry milk
2 cups confectioner's sugar
3 cups cake crumbs

Combine corn sirup and peanut butter. Stir in gradually the dry milk and sugar. Mix until well blended and smooth. Shape into thin rolls and slice into 1-inch pieces. Roll in cake crumbs. Makes 100 cookies.

Other Halloween Ideas

Make your favorite rolled crisp butter cookies and cut into shapes of pumpkins, owls, bats, or other desired forms with floured cookie cutters, or from your own patterns cut from cardboard. Bake and cool; frost half the cookies with orange tinted confectioner's frosting and the remainder with chocolate frosting. With a cake decorator and tinted frostings, draw eyes, nose, and mouth on the iced cookies.

Jack-O-Lantern Tart. Make up your own recipe for pastry, using about 2½ cups flour. Divide dough into two parts. Roll one piece of dough into a 12-inch circle on a lightly floured board and transfer to a cookie sheet.

Spread circle up to 1 inch from edge with a mixture of 2 cups finely peeled and diced apple, 1 cup fine coconut, ½ cup raisins, ½ cup brown sugar, ½ cup granulated sugar, grated rind and juice of 1 lemon, and 1 egg beaten with 2 tablespoons soft butter. Dampen edge of circle with cold water.

Roll second piece of dough into 12-inch circle and place over apple mixture. Press edges of tart together, turn up edge with hand, and flute. Make a face by cutting out rounds for eyes, a triangle for nose, and half moon for mouth. Bake in a hot oven (425°) 35 to 45 minutes or until pastry is crisp and lightly browned and filling bubbly. Serves about 12.

FOODS MAKE NEWS

Two major brands (and one regional) of instant flour have appeared on grocery shelves. Some of the advertising for this new form of flour notes the following: granular texture resembling sugar or salt and pouring as easily; same nutritional value as enriched flour; doesn't pack down in the bag, which has a special pouring spout, so does not need sifting and may be poured, dipped, or spooned into measuring cup and leveled off; disperses in liquid without lumping; can be used interchangeably in any recipe calling for all-purpose flour.

Testing the first instant flour on the market in a number of baked products, the Department of Food and Nutrition at Cornell University's College of Home Economics, definitely confirmed that the new flour could be successfully interchanged with regular all-purpose flour. The granular texture of cake batter made with instant flour disappeared during baking, and the baked product was highly acceptable. Pastry made with instant flour and hydrogenated shortening required some extra stirring in order to obtain a workable dough, but without the addition of more water which at first appeared desirable.

Yeast bread made with the new product was also highly acceptable in the finished state. In kneading the dough, the expected smooth satiny ball was not obtained (due to granular nature of the flour), but this had no effect on the baking quality or acceptability. As a thickening agent, the instant flour compared favorably with regular flour, although it dispersed more evenly and easily in cold liquids than in hot (becoming lumpy with the latter).

You will probably wish to try out this new product and decide if it's to your advantage to stock both regular and instant flour in your kitchen. Instant flour costs about two cents more a pound than regular flour.

Time-Saving Onion Products. Frozen items now available include French fried onion rings, small

(Continued on page 37)

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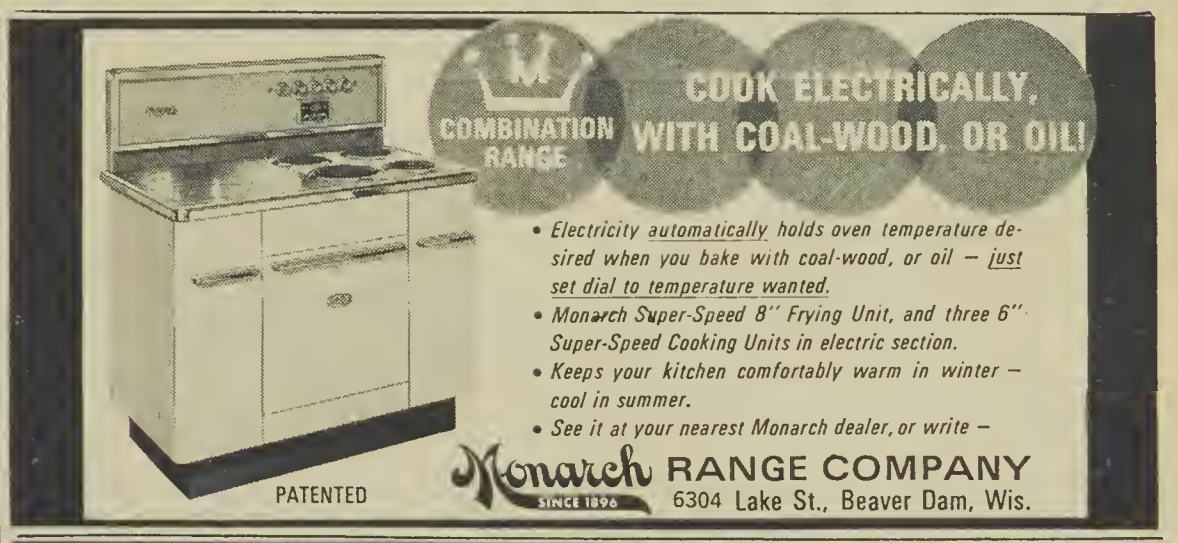
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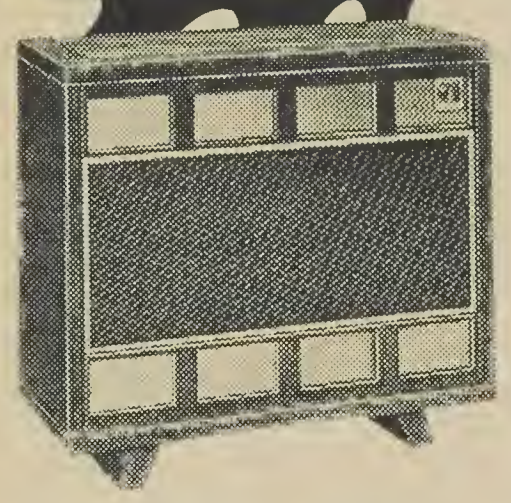
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FALL CLEAN-UP

by Nenetzin R. White

In September we talked about shade trees, and I intended this month to add other varieties to the list I gave you then. However, since this is traditionally "fall clean-up time" (and they say a woman can always change her mind!), I now want to give you some October gardening suggestions, and will tell you more about shade trees later.

A small amount of work this fall will greatly lessen next spring's gardening task. I am always so busy weeding and planting in the spring that anything I can do in the fall eases the work load when it's most important to save time.

Right now (after a gentle rain is the best time) get the weeds and grass out of your borders. Some of these weeds are only annuals, but the perennials and the grass will really "take off" if left until next spring.

Hand weeding is best if you can get out all the roots. If this is not possible, try a weed killer. Use one of these with great care, however, for if it gets on regular plants, they too will be killed. I use a dry form of weed killer, carrying it in a small bowl and applying it carefully by hand. This should be done when the foliage is damp, and hot days increase its effectiveness. Try to pick a time when rain is not expected for 24 hours.

Roses and Perennials

If you grow roses and have had any form of fungus, mildew or black spot, apply a fungicide now and burn any foliage that is diseased. These disease spores can winter over in the soil, but by getting after them now and again in early spring, you should be able to control them.

In cutting back roses and perennials, be governed by your local weather conditions. Here in Ithaca, New York, we feel it is best not to prune hybrid tea roses too severely in the fall. Usually just enough is cut back to give a neat appearance.

Perennial foliage can be removed if you plan to use a mulch. I like a mulch, and I still find that peat moss covered with evergreen branches is the best.

Lawns

Now is the time to get after weeds in your lawn too. I do not feel that spot weeding is good, for you are bound to miss many of the small weeds that are just starting to grow. The dry forms of weed killers are inexpensive and easy to apply with a fertilizer cart. Again, damp lawn, hot days, and no rain for 24 hours will give you the most success.

You can reseed lightly about two weeks after weed killer is applied. Good lawn seed will germinate in the fall or remain dormant until spring, when it will really "take off," earlier than you would believe possible. Grass makes its best growth in cool weather, so it's never too late to feed your lawn. Organic fertilizers don't cost any more than chemical ones on an analysis basis, and they won't burn.

Fall and Winter Planting

Fall planting is really very successful. The plant is dormant and will make a lot of root growth. Remember, too you are not asking the plant to make root growth and top growth at the same time; this it must do in the spring. Small plants such as those used for ground covers may heave during cold weather unless well mulched, so keep this in mind.

Even here in the Northeast, you can plant all winter. We don't normally do this for obvious reasons — there is too much snow; it's uncomfortable, and there is the danger of freezing plant roots. However, large shade trees are most successfully moved in the winter, since it is desirable to have a frozen ball of earth attached to the roots.

Fall Feeding

Late fall is a wonderful time to feed trees and shrubs. The fertilizer becomes available to the roots with fall and spring rains, and plants get the food at the most needed time. Large trees are best fed by the auger method, and again I suggest the use of organic fertilizers.

You might tuck this little piece of information away for future use. It is not advisable to feed plants in the late summer or early fall. You might force late growth which, not having time to properly harden off, would be likely to freeze. But as I said before, lawns may be fed anytime.



FIREPLACE COLOR

One of our readers has asked how to treat pine cones to give colored flames when burned in the fireplace. This seems like a wonderful idea for inexpensive Christmas gifts, and I thought many of you might like this information.

There are two methods for doing this, as follows:

1. If cones have not opened, put them in a warm place for a day or two. Dissolve desired chemicals in a wooden tub, at the rate of one pound chemical to one gallon of water. Soak cones thoroughly. Drain and dry. Mesh bags are a good way to dry cones. Remember to protect your hands and clothing from these chemicals.

2. Use dry glue at the rate of two (2) tablespoons to a gallon of water. Dip and dry cones, then dust on chemicals.

The following chemicals can be used safely to give you the colors desired:

COLOR	CHEMICAL
Red	Strontium chloride
Green	Barium chloride
Blue	Copper sulphate
Orange	Calcium chloride
Lavender	Potassium chloride
Yellow	Sodium chloride (salt)

One word of warning — the sodium and calcium are strong and will overide other colors.

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PRIZE COFFEE CAKES!

by Augusta Chapman, Home Editor

The Yeast Coffee Cake Contest sponsored by American Agriculturist and New York State Grange is fast drawing to a close, with the grand finale just a few weeks off. Bright and early on Tuesday morning, October 27, at State Grange annual session in Rochester, N. Y., three judges will settle down to the difficult task of selecting the 15 best coffee cakes from those entered in the state finals by 53 Pomona winners.

This year's grand prizes, two beautiful ranges and a dishwasher, will be awarded the three women receiving highest scores, with valuable grocery prizes and cash awards going to all 15 top winners. We appreciate very much the cooperation of American Agriculturist advertisers who donate prizes year after year, helping to make these baking contests possible. Those companies participating in our 1964 coffee cake contest are Agway; Magic Chef, Inc.; Monarch Range Company; Penick & Ford, Ltd., Inc., and Standard Brands, Inc.

So far, you have been given the names of 37 Pomona winners, and below is a list of those who won the other county contests. We don't have a single male winner this year; is coffee cake a little too "fancy" for the men? Also, there were several teenage winners in last year's gingerbread contest, but Sally Dantz, a student at Geneseo Central School in Livingston County, is our only one for 1964. I'm glad there's still an occasional young person who isn't afraid to tackle baking with yeast!

Ralph Morgan, our winner, has entered many baking contests before, but this was the first time she ever won at Pomona. She almost fainted!"

There were fourteen entries in the Saratoga County contest, and Mrs. Mary E. Plummer says, "The coffee cakes submitted for judging were marvelous — as delicious to eat as they were delightful to look at. It is difficult to imagine so many different types, but I think it was a real 'fun' contest because a contestant could use ingenuity in design and decoration.

"Our winner, Mrs. Max Ellithorpe, is wife of the State Deputy of Saratoga County. Roberta always seems to enjoy whatever she is doing. She's a wonderful cook and, as this contest shows, a marvelous baker too."

Our December issue will bring you the story of the state finals with names of the top 15 contestants, some of the prize-winning recipes, and pictures of all the baking champions who are at State Grange when the winners are announced.



MRS. R. ANDERSEN
Albony County



MRS. E. REESE
Fulton County



MRS. J. WULFF
Oronge-Rocklond



MRS. B. FAORA
Schohorie County

POMONA WINNERS

COUNTY	GRANGE	WINNER
Albony	Hiowotho	Mrs. Amelio Andersen
Broome	Susquehonno Volley	Mrs. Froncis Reynolds
Coyugo	Morovio	Mrs. Evelyn DeCoudres
Chautauquo	Sheridon	Mrs. Nelson Merritt
Chenongo	Greene	Mrs. Rolph Morgon
Genesee	Stofford	Mrs. Froncis Motthews, Sr.
Greene	Loonenburg	Mrs. Lewis Bush
Livingston	Grovelond	Miss Solly Dontz
Montgomery	Florido	Mrs. John Vosburgh
Niogoro	Pendleton	Mrs. Wilfred Miller
Oronge-Rocklond	Neversink Volley	Mrs. Julius Wulff
Otsego	Westville	Mrs. Howord Hotoling
Sorotogo	Wilton	Mrs. Max Ellithorpe
Schenectody	Gifford	Mrs. Ruth Furbeck
Schohorie	Schohorie Volley	Mrs. Benjomin Fooro
Woyne	Clyde	Mrs. Izolo Noble

It seems apparent from the reports sent me by the Pomona Service & Hospitality chairmen that Grangers have enjoyed this contest. Following are comments from some of these reports:

The Cayuga County chairman, Mrs. Mary M. White, writes, "After the coffee cakes were judged, we had an auction (Grangers had been asked to bring in other baked goods to be auctioned off with the coffee cakes). Whenever there was a lull in the meeting, the master sold something, and it created a lot of fun."

Mrs. Dorothy Waite is just sure they have a state winner in Chautauqua County! She writes, "Myrtle Merritt not only won the coffee cake contest, but also the Curtis Cake Contest, and then walked off with first prize in my Pomona pie contest as well. So if she keeps up her usual good baking, we're convinced she will win at state."

From Chenango County, Mrs. Esther M. Titus reports, "Mrs.

FROST DOGS ARE RUNNING

By Inez George Gridley

Frost dogs are running
Through the still night,
Nipping the zinnias
In the starlight.
Sharp fang and white ruff
Will pad and prowl
Outside the warm house—
No frosty growl.
But some chill morning
An icy track
Will cross the meadow
And leave it black.

SAFER GOBLINS

A flowing witch's robe, hag's hair hanging low across the shoulders, and a lighted pumpkin grinning its toothless smile into the night. There you have all of the makings for a wonderful night of "tricks or treats," but also just the right combination for a serious fire.

A flame-resistant solution developed by the U. S. Department of Agriculture contains 7 ounces of borax, 3 ounces boric acid, and 2 quarts of hot water. Commercial grades of these chemicals give as good results as more expensive pharmaceutical grades.

Dissolve boric acid by making a paste with a small quantity of water. Add this and the borax to the water and stir until solution is clear.

Put this solution into a laundry sprinkler and thoroughly dampen your youngster's costume. (Do not use on rayon or resin-treated fabrics.) Allow the garment to nearly dry and press with moderately hot iron.

Treated materials will char and possibly glow but will not burst into flame. If you plan to use the costume next Halloween, you'll have to treat the fabric again, and the outfit will need to be retreated if it is laundered.

How about FLYING the family to the Fair on MOHAWK AIRLINE'S FAMILY PLAN



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VISIT the old-time rural church, one-room school, country store, barber shop, and blacksmith shop.

RIDE with Grandpa and Grandma and their big families in a democrat wagon to the county fair; then later ride with them in their first automobile.

EAT an old-time "biled" dinner.

LAUGH with them as they tell you about Grandpa's adventure with the golden glow, and of the adventures and misadventures of their cantankerous neighbors.

CRY with them as you learn the sorrows they endured.

In short, take a journey to the never, never land with Ed Eastman in his wonderful book, JOURNEY TO DAY BEFORE YESTERDAY. Then I'll bet you'll be glad to have a return trip ticket back to NOW. Fortify yourself for the coming long winter evenings with this book, or give it as an anniversary, birthday or Christmas gift.

Send your check or money order for $5.95 to AMERICAN AGRICULTURIST, Department Book, Savings Bank Building, Ithaca, N. Y., and your copy will be mailed postpaid.



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JOURNEY TO A FAR COUNTRY

by Mary Geisler Phillips*

A trip to Europe was just two weeks ahead for me when I was taken to the hospital with pneumonia. After I came home, I realized that the experience of those days spent in the far country of the hospital was richer than any I might have had abroad.

I went into the hospital feeling very ill and very sorry for myself. I looked into the future and the outlook was extremely gloomy. In this deep blue fog, during those first few days, many people came and went, moving in and out noiselessly — nothing to me but gentle voices and tender hands. Then gradually as their kindness and devotion touched me, I began to feel that I was in God's hands and these were His ministers.

Perhaps it was His will for me, I thought, to have this experience, in order to open my eyes to the beauty of service. Instead of giving myself the fun of a trip abroad, I might here humbly learn how to give more unselfishly to others.

From that time on, I stopped worrying about the future — whatever God's plan for me might be, I knew it would be good. I would hold fast to faith and relax.

As day by day I became better, the people who opened my door took on personality. My breakfast was brought in by a smiling little Japanese woman, not in uniform. Soon I learned that she was married to a G.I. whom she met during the war and who was working toward a Ph.D. degree at our local university. She herself had a master's degree, and they had three children, all of whom they hoped to send to college. Here she was, helping her family by carrying trays and cleaning bedrooms.

"God is good! Everything very nice, we are very happy," she said one day, nodding vigorously. I was proud to have her bring me my meals.

My bath was given by a student practical nurse, a pretty redhead, cheerful-voiced, cheerful-faced. I learned that she got up every morning at five, to get her large household moving before she came to work at seven. Who says that American women have grown soft and flabby? She made me ashamed that I had ever thought my lot a hard one.

Then there was the young girl learning to be a practical nurse who came in to make my bed and add to my comfort throughout the day. There was something sad about her face, and I wondered about her history. One day she told me that she would graduate in a day or two, and her whole face lighted up.

"We have graduation exercises and get our caps," she said, but after a moment of silence the light went from her eyes. "All the girls will have their families there to applaud. All but me — I have no family."

Then she poured out her story. Her parents were divorced when she was a baby and she lived with a grandmother. When the grandmother died, she went back to her mother, but her stepfather resented her, and they did not "get along." At the age of thirteen, she decided to leave home and go out into the world on her own.

From that time on she did housework in different families for $5.00 a week with the privilege of going to school, until her graduation at sixteen from high school. Then, with the help of school counselors, she decided on the profession of practical nurse. Now her apprenticeship was almost over — she had made the long uphill climb, and a job was waiting for her when she received her cap!

There's lots of talk about juvenile delinquency, but here was a girl who on her own had kept herself from the pitfalls many teenagers fall into and had made a fine record for herself during her high school days and throughout her apprenticeship. Valiant, persevering, hard working, she surely deserved success.

The stories of these and many others of the hospital helpers made me realize that the inhabitants of this Hospital Land have special qualities of hardihood and courage. They also have a devotion to service. Their hours are full of difficult, unrelenting labor, but they never seem to think of themselves. They are always cheerful and willing to do anything for a patient's comfort.

Soon my hospital room blossomed with flowers from friends, and I had unexpected contacts with old and new friends who dropped in to wish me well. Their love flowed into my room, and mine flowed out to them. It was a time of renewal of the ties between us, and my heart was warmed by their loving kindness. There's a lot of it in the country of the hospital.

So far all my contacts had centered in my own room, but when I was able to sit up with the door open, I became aware of the traffic that passed my door along the corridor, the main highway for this part of Hospital Land. I had heard the woman in the room across from mine moaning, and knew she was very ill. But one morning she appeared walking slowly in a walker — one foot shoved painfully forward, then the

(Continued on page 37)

*** Editor's Note: We are genuinely sorry to bring our readers word that Mrs. Phillips died in Auburn, New York, this past winter, but feel that perhaps her story has an even more poignant appeal to us now. Mrs. Phillips, an emeritus professor of the New York State College of Home Economics at Cornell, was Editor of the College at the time of her retirement in 1949. She was the author of many delightful books of nature stories for children.**

'round the kitchen . . .

(Continued from page 33)

stewing onions, prepared onion dishes, and plastic bags of chopped onions.

The quality of dehydrated onions on the market in sliced, flaked, minced, chopped, and powdered forms has improved with newer techniques and methods of dehydration. After reconstitution of any of these, flavor and texture are much like the fresh product, although some users recommend a longer time for reconstitution than that noted on packages. Freeze-dried chives are also available.

A New Dehydration Process called "explosion puffing" (similar to puffed cereals) produces dehydrated fruits and vegetables which cook fast and taste really fresh. Discovered by U.S.D.A.'s Agricultural Research Service, the method has been successfully tried with apple slices and blueberries and with pieces of potatoes, carrots, beets, turnips, and sweet potatoes.

FRENCH KNIFE A Good Tool

A French knife, one with a 6 to 8-inch blade, quite wide near the handle and curved near the point, is considered one of the most useful knives in the home kitchen. With this knife, cutting, dicing, chopping, or shredding (using a rocking motion) is easy, without hitting fingers on cutting board.

Home Economics Extension Leaflet No. 26, "A French Knife Speeds Food Preparation," 10 cents (single copies free to New York State residents), is available from Mailing Room, Stone Hall, Ithaca, New York.

Journey to a far country . . .

(Continued from page 36)

other. Each day she took her walk and every time she glanced in my door and smiled. I learned that she was dying of an inoperable cancer. What courage it must have taken just to smile!

Another day a woman came along in a wheel chair. I waved to her and she steered the chair to my bedside. We had mutual friends, and we spoke of them, then talked about the books we were reading, the news of the world, the new city library — and it was only when she turned her chair to go that I noticed she had only one leg. The other was amputated some months before. Such valor!

Soon I knew everyone up and down the hall who was able to be up and walking. There was a sympathy among us, for we had the common bond of suffering and we spoke the language of compassion.

We talked often of things that ordinarily we did not speak of — of life eternal; of the infinite influences that vibrate in Nature; of our need for understanding the wonders of the universe and of humanity; of the efficacy of prayer and the closeness we felt to God in the atmosphere of this country of the hospital. I came home inspired, content and enriched, as if I had had a trip to some far and beautiful place.

Our Christmas Gift!

AMERICAN AGRICULTURIST

The Farm Paper of the Northeast

A. JAMES HALL
CIRCULATION MANAGER

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Dear Friends:

Christmas time again gives us the opportunity to do something special for our readers.

This year we have an assortment of Christmas cards, seals and stickers even better than those of two years ago. The cards, all in beautiful color, are all different, with appropriate Christmas sentiments and of course we supply the envelopes. Also in the gift package is a gay assortment of seals and tags - the kind children look for on their packages Christmas morning.

This Christmas package OF MORE THAN 100 PIECES is sent as a gift, postpaid, to those who send in a subscription promptly!

Each copy of American Agriculturist will be full of up-to-date farming ideas. There are crop reports, price trends and dependable machinery maintenance columns.

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Sincerely yours,

Jim Hall

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ED EASTMAN'S PAGE

WE TRAVELED ON THE SAME TRAIN

"My wife gave me your book — JOURNEY TO DAY BEFORE YESTERDAY. As I am nearing my 79th birthday, I have been 'riding with you the same train of life.' I have worked with oxen all day. In this day and year, I think I would go nuts if I had to yoke the cattle and draw out manure all day; the same goes for working with horses and all the other slow jobs. You probably know all about it." — W. R. T., Mass.

Yes, I do indeed know all about it, and of course I would go nuts if I had to go back to Day Before Yesterday to stay. But I like to read and write about those quiet, peaceful slow days which were not always so peaceful either. I like to remember how the people worked and how they lived, about their sorrows and their fun. That's why I wrote JOURNEY TO DAY BEFORE YESTERDAY

Nothing in years has given me more happiness than to read the many enthusiastic letters from older people who, as my friend said, "traveled on the same train as I did." I have also been greatly pleased that so many young people like this story about the "journey" that we older ones took when we were young.

The long fall evenings are good times for reading. So why not take a trip with me back to the never, never land of DAY BEFORE YESTERDAY? I will guarantee to give you a good time and bring you safely back to now.

The price of the book is $5.95 postpaid. Send your order with check or money order to American Agriculturist, Department Book, Savings Bank Building, Ithaca, N. Y., and your copy will be mailed to you.

BIRDSFOOT — MIRACLE PLANT

One summer day some 30 years ago my friend, the late Dr. Carl E. Ladd, Dean of the New York State College of Agriculture, and I were returning by car from a meeting of the Farm Credit Board of Directors at Springfield, Massachusetts. When we reached Columbia County in eastern New York, we turned off the main road a little to visit a farmer who had the first field of birdsfoot clover I had ever seen, and one of the first in the Northeast. When the farmer took us to the naturally poor back pasture I almost caught my breath, for it was covered with a carpet of gold — birdsfoot trefoil — and in it the farmer's entire herd of 30 or 40 cows were lying down contentedly chewing their cuds. It had only taken a short time for them to eat their fill of this wonderful legume.

So impressed were both Carl and I that we agreed that he would try to get the Extension force of the New York State College of Agriculture interested, while I would use the columns of American Agriculturist to interest farmers in growing birdsfoot trefoil.

But I guess we were ahead of our times, for we were much disappointed, and in spite of our efforts little progress was made at first. But now I'm glad that I have lived to see the day when there are in New York State alone approximately 700,000 acres of birdsfoot grown by thousands of farmers who find this legume almost a miracle plant. The reason why birdsfoot took hold so slowly, I think, is that it is difficult on most farms to get a first seeding. Once established, however, it will last for ten years or more.

Among the reasons why so many farmers now are growing birdsfoot are:

1. It will grow on relatively poor soil where no other legume can be established. Unlike alfalfa or other legumes, it does not need much lime.
2. Like all legumes, birdsfoot trefoil is high in protein, the most important and the most costly of food ingredients. It betters the soil where it grows by leaving a deposit of nitrogen.
3. Birdsfoot is excellent, both for pasture and for hay. Some farmers, however, use it only for pasture, thinking that the yield of birdsfoot for hay is not large enough.
4. Birdsfoot makes excellent silage, high in protein and very palatable.

In short, birdsfoot is becoming recognized as just about the best forage plant there is, particularly on poor soil.

THE HOME NEEDS EQUIPMENT TOO!

How far is a farm woman justified in asking that her home have modern labor-saving equipment such as the farmer has for his farm work?

Some husbands answer this question by saying that it is more necessary to have farm equipment because, in order to make an income large enough to take care of the family, it is impossible to run a large modern farm without costly machinery both in the barn and in the field.

But there certainly comes a time in a farm woman's life when she can no longer do so much work by hand as my mother did, especially if there are children to take care of.

What First?

When a husband and wife agree to get started with home equipment, what should they buy first? Let's assume that electricity is available, as it is now in nearly all farm homes. In my opinion then, the first essential is a refrigerator. Gone forever are the days when women tried to save food in the summertime by putting it down cellar or in the spring house. Of course, an electric or gas range is a necessity. Wood and coal-burning stoves are gone . . . or should be . . . into the limbo.

Next on my list of necessary home equipment comes an automatic washing machine. Nothing else will save more hard labor.

Now we come to the more debatable items. When I think of how women have tried to dry clothes outdoors in all kinds of weather, I would vote for a modern clothes dryer. We have had one for years and we don't know how we ever got along without it.

Near The Top

Somewhere near the top of the list comes the vacuum cleaner with which a better job can be done in a few minutes than in hours with the broom or carpet sweeper.

We have had an automatic dishwasher for years and we like it fine. Not only does it save time, but we feel that the scalding water does a more sanitary job than the lukewarm water which has to be used by hand. But dishwashers are not absolutely necessary. Before buying one, you would need to be sure that your water supply and its pressure are adequate. Dishwashing is something that both boys and girls should be brought up to do regularly in order to create habits of responsibility. I believe most emphatically that young people should have a share in the responsibility of running a home.

A young couple starting a new home will have to go slowly, and will need to put their heads together to decide and agree upon any new piece of equipment needed either on the farm or in the home, making sure that they don't get into more debt than they can possibly pay.

But it is necessary to live as well as make a living, not next week nor next year but NOW. Modern home equipment makes for a well-balanced farm life for the whole family.



Modern equipment in the kitchen is just as necessary as it is on the farm.

FARMERS ARE STILL HOSPITABLE

Recently I received a long letter from a farmer friend who said that he believed that the free-hearted hospitality that used to prevail on the farms in the good old times of long ago is disappearing. Then this man went on to tell how when he was a boy, friends and relatives living at distances used to get up early in the morning several times a year, drive to his father's farm home and spend a whole day. They would sit down at noon to a chicken dinner with all the "fixin's" and have the sort of visits and good times impossible in these modern, hurrying days.

"Farm people," continued my friend, "now even look with suspicion on every automobile that happens to stop for five minutes anywhere on the farm premises, and whenever a favor is asked of a farmer by a stranger, the farmer either grants it grudgingly or demands pay for it."

Now, personally, I do not believe that real hospitality is disappearing from rural life. To be sure, times are different now when the automobile brings all sorts of guests — some of them undesirable — to the farmer's door.

What do you think about it? Have the automobile and all these modern contraptions of ours taken from us some of the fine old spiritual things that our fathers and mothers used to possess, that count far more in real happiness than mere material things? I shall be glad to hear from you on this subject. Write to me at 515 North Tioga Street, Ithaca, N. Y.

EASTMAN'S CHESTNUT

An Irishman, crossing the street, was knocked down by a big dog. Just as he was getting on his feet, he was knocked down again by a Volkswagon. Another man rushed over to see if the Irishman was hurt. Apparently none the worse for wear, he scrambled to his feet and said:

"Sure'n I didn't mind the dog so much, but that tin can tied to his tail near done me in."

American Agriculturist, October, 1964

AA SERVICE BUREAU

WORK AT HOME

"I need work and cannot go away from home because of my children. I saw an ad for homework, so wrote and inquired about it. I received an application to fill out, and for $5.00 they would send a sample of each of four plans they offer. I mailed the application and $5.00, and a couple of weeks later received one plastic tablecloth, one pair of baby shoes, one card of bobby pins, and one tea apron. Then, they requested another $4.00 for which they would send me the work — all materials to be furnished by them. However, I have never received any work or materials from them.

"I wanted to make some money to get my son a nice graduation gift, and I certainly can't afford to lose this $9.00. Is there anything you can do to help me or to keep others from getting involved this way?"

We have written this company once without an answer and, frankly, we are not too optimistic that we will get one. Complaints against such companies are particularly disheartening because, obviously, most people who answer these ads can ill afford to lose the money.

We have never recommended any homework companies because we don't put much faith in a company that offers you work at home and then the first thing they want is money. It has been our experience (and it is borne out by the above letter) that they are more interested in getting money for a little information or a few materials than they are in helping any individual. Once they have your money, they lose interest in you. They are interested only in the money they are taking in.

In some instances, it is up to the homeworker to find his own market; in others, the promoter may offer to buy back the materials which the homeworker has assembled. When the completed article is sent to the company, however, it is generally refused as not being up to their standards, regardless of how well it may have been done.

You may ask, "Why can't such companies be stopped from making these misleading offers?" There are several reasons:

1. The loss to any one individual is too small to encourage prosecution of the swindler.

2. Advertisements and literature are seldom signed with an individual's name. If things get "hot" the business is likely to close up; perhaps opening the next day with a new name and address.

3. The promoter can make a lot of money in a short time, while any efforts to catch up with him take a much longer time.

The best way to stop these promoters is for publications to refuse their advertising and for readers to refuse to answer their ads.

If you are interested in starting a part-time business at home, there are a number of possibilities.

You could run a classified ad in a local newspaper, offering to do typing, baby-sitting, or sewing. If you are a good seamstress, you might offer to sew or mend for other housewives, or you might be able to interest local stores or gift shops in selling what you make on a commission basis.

You could open a roadside fruit or vegetable stand.

Taking boarders or roomers is another possibility; or perhaps you could care for an orphan child for the county welfare department.

Some other ways of making money at home would require more planning, possibly more work, and occasionally a small amount of capital. You might write the Small Business Administration, U. S. Department of Commerce, Washington 25, D. C., for bulletins on home businesses.

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mrs. Mary L. Scheff, Corinth $15.00
(refund an subs.)
Mrs. Juniar E. Walfer, Farmersville Sta... 5.00
(refund of depasit)
Mrs. Herbert Elderkin, Franklin 5.44
(refund on skirt)
Mrs. Edward J. Gerczak, Sr., Pine Island. 24.99
(refund an bookcose)
Mrs. Mabel S. Louden, Champlain..... 4.00
(refund an tree)
Mr. Ira J. Hirschy, Lawville 14.86
(refund af premium)
Mrs. Fred Bristol, Cleveland..... 73.80
(poyment for trees)
Mr. Albert Johnson, Baldwinsville 30.00
(poyment for hoy)

VERMONT

Mrs. George Dix, Plainfield 29.95
(refund an tube tester)

MASSACHUSETTS

Mrs. Joseph Seaborne, Hardwick 2.00
(refund on rodio)

CONNECTICUT

Mr. Jahn Cirkat, Sheltan 4.40
(refund an strowberries)

CAN YOU HELP?

Mrs. Lewis B. Cope, East Springfield, New York, would like to get one copy each of New Education Readers, Books One, Two and Three, by A. J. Demarest and Wm. M. Van Sickle, published by American Book Company.

* * *

Mrs. Robert R. Smith, Box 124, Parish, N. Y., would like to get a copy of the book "The Fields" by Conrad Richter.

* * *

Roy Van Dyke, R. 1, Freeport, Pa., would like the poem which contains the following verse: "If you wish to live long and happy, spend your first years on the farm. It will give you a constitution that privation cannot harm."

ADDRESSES WANTED

Ralph Willard Shaw, son of Charles Shaw and Alice Witham, born in Beverly, Mass, in 1896. He lived in Ashland, N. H., New York City and New Jersey.

* * *

Roy Reed, Sr., whose son in Newark, N. Y. would like to contact him.

* * *

Leroy Whitehead, whose last known address was the Potter County Home for the Aged at Coudersport, Pa.

HOOF ROT?
CANKER — THRUSH
A powerful, penetrating antiseptic and absorbing agent for stubborn hoof infections. Easy to apply —pour it on. No bandage required. $1.25 at drug and farm stores or write.
H. W. Naylor Co., Morris 4, N.Y
Dr. Naylor's LINITE

"We have come to know the importance of insurance"



Learning to walk on an artificial right leg, Mr. W. Howard Brooks of Weedsport, N.Y. received North American checks totalling $3990.00 from his local agent Eston Reed.

The accident happened while shoveling seed corn from a crib onto an elevator—Mr. Brooks slipped, lost his balance, fell and bumped his head. Next thing he knew his leg was wound up in the power take off running the elevator. His son, working close by, freed the leg then called an ambulance. In but a short time Mr. Brooks was on the operating table having his mangled leg amputated just above the knee.

THE BROOKS WROTE THIS NOTE

"In the many years we have been associated with North American Accident Ins. Co. we have come to know the importance of insurance.

Through the years we have had the benefit of friendly personal attention of our agent, Eston Reed.

Our entire family has been affiliated with your Company and wish to thank you for your courteous, dependable service."

OTHER BENEFITS PAID

Charles Dougherty, Andover, N.Y. $ 119.71
Fell getting off tractor—injured hip
Russell Cokely, Glen Aubrey, N.Y. 167.14
Kicked by cow—fractured leg
Mildred Hitchcock, Olean, N.Y. 230.00
Fell down stairs—injured arm, concussion
Alfred Hatfield, Moravia, N.Y. 832.37
Caught in self-unloading wagon—severe injury to hand
Lyle Gabriel, Clymer, N.Y. 206.35
Stepped on stone & fell—fractured ankle
William Parker, Lowman, N.Y. 201.14
Getting off tractor—injured knee
Wendell Bernard, Sherburne, N.Y. 200.00
Kicked by cow—injured leg
Roger Couch, Marathon, N.Y. 587.02
Wind blew sawdust in eye—injured eye
Lloyd Johnson, Jr., Delhi, N.Y. 128.58
Caught in corn chopper—cut thumb
Eugene M. Kehr, Lawtons, N.Y. 239.25
Ladder broke—fractured arm
James Tavernier, Burke, N.Y. 130.00
Knocked down by bull—fractured arm
Walter Kruszelnicki, Darien Center, N.Y. 935.70
Auto Acc.—whiplash neck, injured teeth, bruises
Irving Hotaling, West Coxsackie, N.Y. .. 132.86
Slipped off wagon—injured eye
Lottie A. Kozak, Richfield Spa, N.Y...... 983.03
Kicked by cow—badly fractured leg
Mariam A. Schell, Philadelphia, N.Y. 398.56
Kicked by cow—fractured ankle
Maurice Leviker, Lowville, N.Y. 1530.00
Fell through scaffold—fractured back
Melvin McNinch, Conesus, N.Y. 415.61
Ran sliver in hand—severe infection
Fred Harris, Eaton, N.Y. 225.57
Struck by cow—injured back
Carl Bauer, Hamlin, N.Y. 230.17
Tractor wheel ran over foot—fractured bone
Nicholas Kuszlyk, Churchville, N.Y. 271.35
Fell—fractured shoulder
Lawrence Coddington, Randall, N.Y. 321.56
Gasoline exploded while burning brush—body burns
Luther Smith, Middleport, N.Y. 217.65
Caught in corn picker—cut finger
DeWitt Head; Waterville, N.Y. $ 490.55
Stepped on by cow—fractured leg
Earl Ashby, Baldwinsville, N.Y. 1647.10
Thrown from truck—fractured knee
Elmer Maslyn, Clifton Springs, N.Y. 1085.00
Fell down hay chute—head injury
Kenneth Luft, Warwick, N.Y. 110.71
Kicked by horse—broke bone in hand
James J. Rodden, Medina, N.Y. 219.00
Truck acc.—injured back, chest cuts
Hattie Phillips, Parish, N.Y. 141.07
Fell—injured leg
Frederick W. Krueger, Otego, N.Y. 963.00
Log fell on leg—compound fractured leg
Ivan Coller, Canton, N.Y. 210.00
Hit by bale of hay—injured back & heel
Theodore Tracy, Rensselaer Falls, N.Y. 121.43
Auto acc.—injured neck, finger
Florence Welch, Jefferson, N.Y. 120.00
Auto acc.—injured neck
Henry Bokina, Cutchogue, N.Y. 325.00
Auto acc.—broke arm, nose, cuts
Joseph Hauryski Sr., Campbell, N.Y. 421.42
Fell off hay truck—injured hip
Gerald Van Fleet, Greenwood, N.Y. 898.67
Playing ball—Torn cartilage in knee
Carl Niles, Berkshire, N.Y. 314.08
Fell from ladder—injured ankle
John Cole, Newfield, N.Y. 610.00
Auto acc.—neck & back injuries
Wallace Bishop Sr., Hudson Falls, N.Y. 554.85
Fell from truck—badly fractured ankle
Donald Holdridge, Red Creek, N.Y. 1173.00
Auto acc.—cut head, injured ribs, foot, concussion
Walter Cole, Jr., Columbia X Road, Pa. 660.72
Fell off tractor—fractured arm
Coe F. Douglas, Pleasant Mount, Pa. 342.86
Kicked by cow—torn ligament in knee
Lee C. Williams, Elmer, N.J. 335.00
Knocked down by cow—internal injuries
J. Warren Cramer, Mt. Holly, N.J. 375.00
Hit by door—injured back
Maurice T. Before, Newport, Vt. 736.82
Kicked by cow—injured knee
Joan Record, Conway, Mass. 369.80
Auto acc.—injured back

Keep Your Policies Renewed

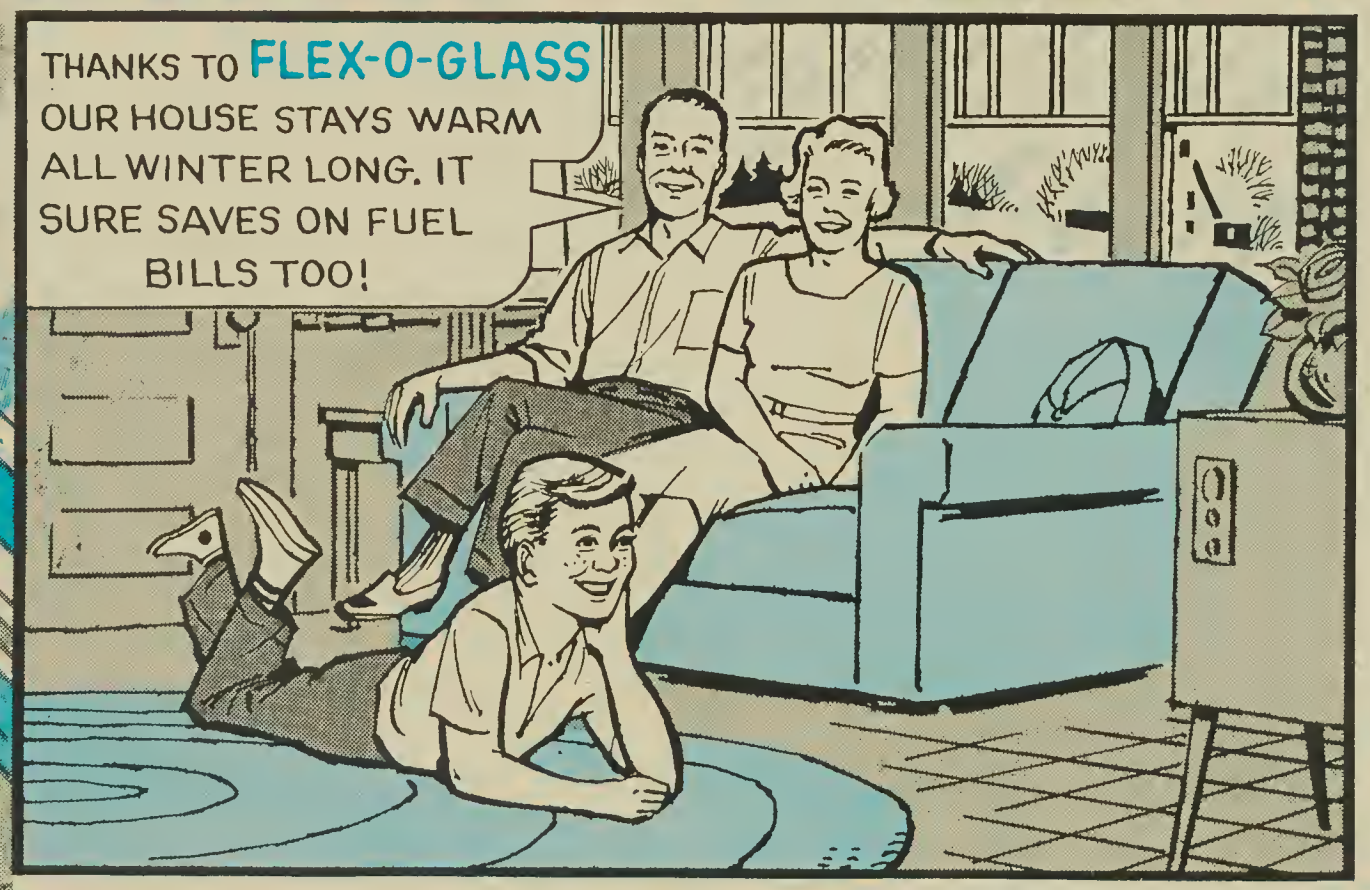
NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
THE NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING — ITHACA, NEW YORK









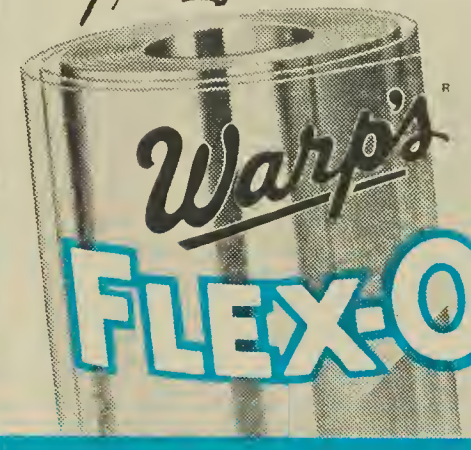




LET ME GIVE YOU A NEIGHBORLY TIP. IF YOU WANT A WARM, SNUG HOME THIS WINTER, GET GENUINE **FLEX-O-GLASS** FROM YOUR HARDWARE OR LUMBER DEALER.

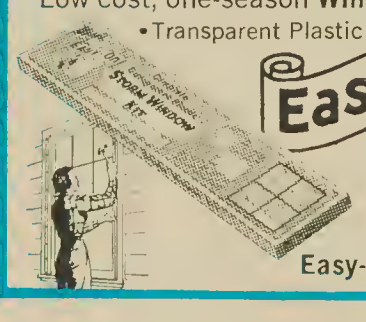
- Guaranteed 2 Years
- Shatterproof
- Crystal-Clear

Only **90¢** SQ. YD. 28", 36" & 48" Widths



America's Most Popular
Low cost, one-season **Window Kit**
• Transparent Plastic •

Easy-On Only **39¢** Each



Everything needed to cover a full size window. 72" x 36" plastic sheet with molding and nails.

Easy-On Door Kit — 49¢ ea.

New Exclusive Cross-Ribbed
PLAST-O-MAT
Heavy Duty Plastic Floor Runner



Handy Size - 60" long by 30" wide. Lays Flat. Also ideal for drawer liners, shelf mats, sink mats.

Only **$1.49** Each

Stops Track-in Mess

Insist on genuine FLEX-O-GLASS at your local Hardware or Lumber Dealer

MADE BY

WARP BROS. CHICAGO 51, ILL.

Progressive Pioneers in Plastics Since 1924

NOVEMBER 1964

American Agriculturist

COWS MILKED

96. **How many cows and heifers were milked yesterday?** None ☐ Number ____ V60

97. **How many milk cows were on this place yesterday?** None ☐ Number ____ —
(Include dry milk cows and milk heifers that have calved.)

MILK AND CREAM SOLD

(Report all sales of milk and cream produced on this place in the entire year 1964, including estimated sales during the remainder of the year. Where sales are divided with landlord, include his share in the total sales reported.)

99. **Was any milk or cream sold, or will any milk or cream be sold from this place this year?** No ☐ Yes ☐

00. **How much whole milk was**
plants and dealers in 1964?
(Report either in pounds or ga

01. **How much whole milk was**
to consumers, stores, and res

02. **How much cream was or will**
(If unable to report pounds of
gallons of cream sold by 2½ t

03. **Was the whole milk sold to**
approved for fluid consumptio

OTHER ANIMALS SOLD

04] **Were any fur-bearing anima**
honey, or other livestock pro
If "Yes," give name of anim
product sold and numbe
amount sold or to be sold . . .

CONTRACTS

06. **Did you have in 1964 a contr**
processor, or a cooperative to

a. If "Yes," give names of
covered by the contract

These questions are to be filled by CENSUS ENUMERATOR.

a. Does
b. Are

Section 9.—EQUIPM

Now we would like to ask you severa
Please include all equipment now on
report only equipment and facilities th

EQUIPMENT

How many of the following are on

07. **Automobiles?** None ☐ ____ V11

08. **Motortrucks** (include pickups) None ☐ ____ V12

09. **Wheel tractors other than ga** None ☐ ____ V13

10. **Crawler tractors?** V14

11. **Garden tractors and motor til**

12. **Grain and bean combines:**
a. Pull type?
b. Self-propelled?

13. **Pickup balers?**

14. **Hay conditioners?**

15. **Crop driers?**

16. **Cornpickers including picker**
corn picking heads for combines? None ☐

17. **Field forage harvesters:**
a. Cylinder or flywheel type? None ☐
b. Flail type? None ☐

FACILITIES

Do you have on this place—

18. **Telephone?** No ☐ Yes ☐ —

19. **Television set?** No ☐ Yes ☐ —

FERTILIZER AND LIME

sprays, and dusts used on this place during 1964. P
plications of fertilizers, lime, sprays, and dusts paid fo
as well as quantities applied on this place by a co
operator.

323. **On how many acres were commercial fertilizer and fertilizing materials used in 1964?** None
(If "None," mark X and skip to question **[324]**.)

(Answer these questions if "Yes.") → **Was fertilizer used this year on any of the following crops—**	No	Yes	(1) On how many acres was fertilizer used?	How n (2) Dry materials (Include rock phosphate)
			Acres	**Tons** **Ter**
	☐	☐		
	☐	☐		
	☐	☐		
	☐	☐		
	☐	☐		
	☐	☐		

. None
skip to question **[326]**.)
used in 1964?
burnt lime, marl.
rays or sanitation.)

s were treated in 1964 by spray
ects and diseases?
treated more than once.)
rye, barley, etc.) None
os? None
not include potatoes.) None
. None
ruits.)
. None
ies, small fruits,

or land were treated in 1964 by
the purpose af controlling weeds
treated more than once.)
. None
barley, etc.) None
. None
sh potatoes, berries,

. None

ere treated externally in 1964 b
the purpose af controlling insects
treated more than once.)
cows? None
. None

rain or row
ntour? None

ems for
this year? None

irs,
and earthen tanks are on this place? None
(If "None," mark X and skip to question **[332]**.)

a. When filled to capacity, how many acres do these water areas cover?
(Report tenths of an acre.)

[332] Did you have any land this year in the crop diversion program—

a. For wheat?

b. For feed grains? (Corn, grain sorghums, and barley.)





the new Agway:

How this herd lifted profits $3,000 in one year through Agway profit feeding

Archie Winton, Sinclairville, N. Y., put the pressure on his 40 Holsteins last year . . . enrolled the herd in Agway's Profit Feeding Plan. Their average jumped 3073 lbs.

The net profit went up $3000.

Winton switched from grist to Agway #1600-16 Milkerpels. "And my cows clean up this high energy pellet in a hurry.— They wait at the barn door now to be let in to get at it."

The herd also went on the PFP recommendation of challenge feeding during early lactation. "They peaked high, and went right on at a high level the rest of the year."

Winton had been **underfeeding** — on energy. "With PFP I got the energy up and the cows responded with 142,087 pounds more milk . . . and a $3000 increase in net profits."

Over 9000 dairymen have enrolled 400,000 cows in PFP. DHIA records show that 9 out of 10 profit-fed cows make significant gains in production.

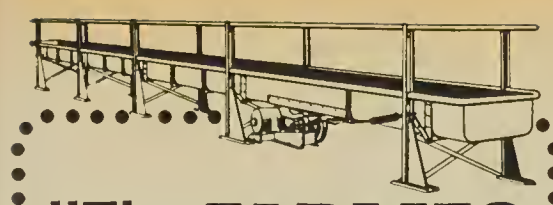
That's why we'd like you to call us today, get the details on this simplified management plan, and begin right now to make 1965 your biggest profit-making year.

Agway Inc., Syracuse, N. Y.

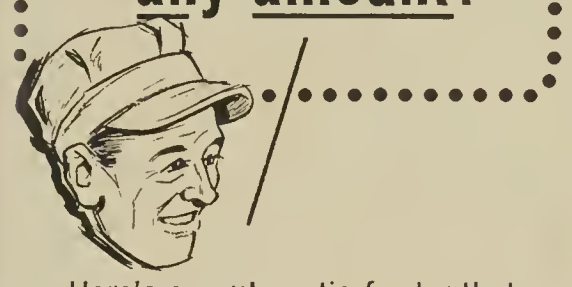
Agway

Created from Eastern States and GLF

DAIRY FEEDS & SERVICES



"The **FARMEC** 561 Trough-Feeder feeds my cattle any feed in any amount!"



Here's an automatic feeder that gives you more for your money . . . more versatility, simplicity, safety and ease of installation. Feeds better — nothing to restrict the flow. Feed moves uniformly from beginning to end of the open trough.

Check these Main Advantages

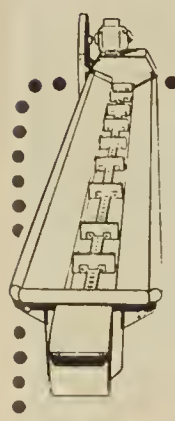
- **Feeds tons automatically . . . simple back and forth trough movement delivers any feed at pre-adjusted rate.**
- **There's no feed trough to build. The 561 is its own feed bunk, with roof supports and trough built in.**
- **There are no blades or other jagged parts to endanger an operator or his livestock.**
- **Costs less to install–concrete-based or surface-mounted units come ready to install and fit any feedlot layout.**

To learn more about FARMEC's complete line of labor-saving Feed-Lot equipment, see your nearest Farmec Dealer . . . or write FARMEC direct, today!

FARMEC

Specialists in Farmstead Mechanization

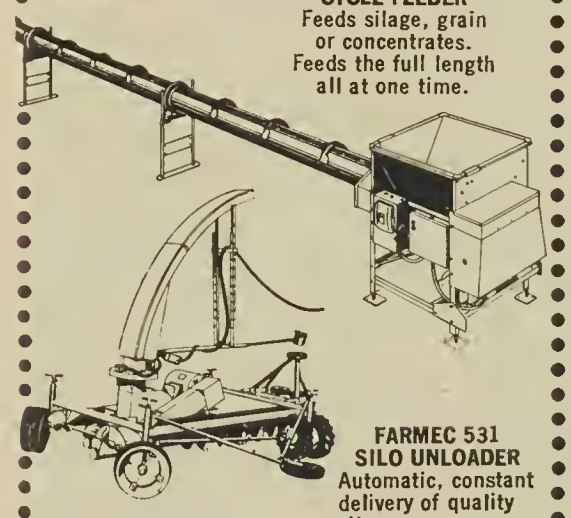
DIVISION OF NEW HOLLAND
Smoketown, Pennsylvania



TO COMPLETE YOUR FEEDING SYSTEM

FARMEC 565 TRANSFER CONVEYOR
Economical top-drive single chain conveyor.

FARMEC 571 CYCLE FEEDER
Feeds silage, grain or concentrates. Feeds the full length all at one time.



FARMEC 531 SILO UNLOADER
Automatic, constant delivery of quality silage.

FARMEC 575 TRANSFER AUGER
A vital link in any feeding system. Now 9" and 11".

American Agriculturist

FOR THE NORTHEAST FARMER

Volume 161 No. 11

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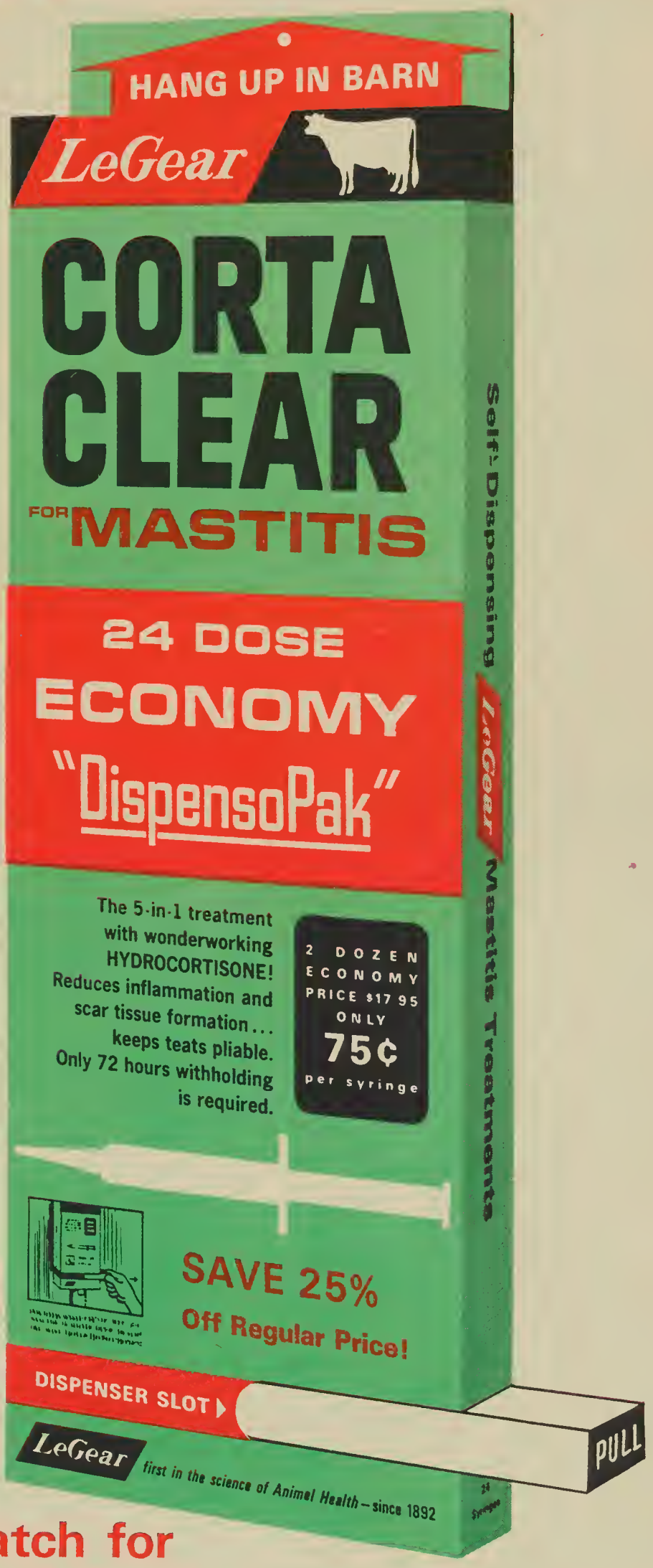
Member Audit Bureau of Circulations

OUR COVER

The 18th Census of Agriculture will get underway in November with mailed questionnaires and, in the case of some farms, by the visits of enumerators. Participation is compulsory by law, but all answers are kept confidential.

Let's all help with this job of getting the best information possible on agriculture!

MASTITIS?



Watch for the BIG BUY... at Better Dealers (and in the barns and parlors of the country's best dairymen)

For more information see your local dealer or write:
Dr. LeGear, Inc. 4161 Beck Ave., St. Louis, Mo. 63116

COW CLEAN

After Calving Boluses



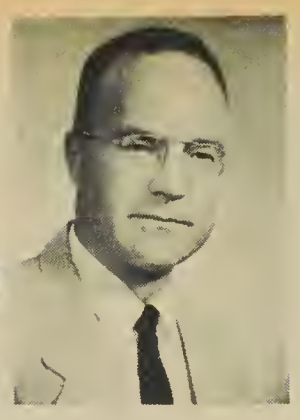
IN CONVENIENT DISPOSABLE APPLICATORS

Now, SAVE 1/3!

New Handy 6-Pack...Only 99¢ per treatment!

EDITORIALS

by GORDON CONKLIN



Publisher's Announcement:

AMERICAN AGRICULTURIST AND RURAL NEW YORKER

Two of the oldest farm magazines in America will combine in December and become "American Agriculturist and the Rural New Yorker."

William F. Berghold, publisher of the Rural New Yorker, and I, as publisher of American Agriculturist, recently made the above announcement and issued the following joint statement which sums up what this will mean to agriculture in the Northeast:

"Both publications have played important roles in Northeast agriculture. With the acquisition of the Rural New Yorker by American Agriculturist, the new publication will, as a single magazine, have more widespread coverage and greater circulation penetration, thereby serving agriculture more extensively and more effectively than ever before."

Details will be in statements by Mr. Berghold and myself in the December issue, when readers of both magazines will receive their first issue of the new "American Agriculturist and Rural New Yorker."

I feel that by combining these two fine publications we have created a much more powerful voice for farmers in the Northeast. Your comments will be welcome.

Sincerely yours,
A. James Hall

THE CONTINUING DEBATE

The noise of political charge and countercharge is fading; the winners exult over the spoils of victory and the losers conduct postmortems. The debate continues unabated, however, between those of differing philosophies . . . among the electorate as well as between its elected representatives.

At the heart of this debate over how best to run governments and the social order is the question: Which of our guidelines are principles that are timeless in relevance and therefore should be preserved; which are merely techniques developed for a temporary situation, methods of accomplishment that should be replaced by better techniques when the opportunity arises? The inability to distinguish clearly between the two has always been one of mankind's stumbling blocks.

For instance, cash registers have evolved into wondrously efficient machines . . . changed a hundred times over the years in order to do a better job. But the old-fashioned adage that "honesty is the best policy" is as completely relevant to the individual receiving payment at the latest model cash register as it was back in the Stone Age when six teeth from saber-toothed tigers were bartered for a bear skin.

Some liberals claim that "pragmatism" should replace the "outmoded theory of clinging to the truth at all times;" some conservatives allow that if we would only return to a system of bartering, everyone would be a lot happier. In my opinion, both "far-outs" are wrong on this point.

Some liberals allow that "the law of supply and demand is archaic and no longer applies;" some conservatives say that government should have no place whatsoever in the market place. Again, I disagree with both the far left and far right.

Returning to the warmth of yesterday's womb is not the way to human fulfillment, but neither is throwing aside the moral and ethical principles learned across the ages. Rather, we must struggle to distinguish between changing superstructure and unchanging foundation.

As a nation, we have drifted across the years toward a diminishing individual responsibility . . . a gigantic federal deficit, teenage orgies of mob destruction, the abdication of parental responsibility . . . the list of symptoms goes on and on. Along with this drift has been a transfer of responsibility to public agencies . . . the schools, the welfare departments, a host of governmental agencies, and all the rest.

The principles of human behavior and moral integrity whose violation brought down the democracy of ancient Greece are still operative; they have not crumbled with the Parthenon. Political leaders come and go; the sound and fury of election campaigns swell and die away . . . but the problems — or opportunities — remain. My contention is that public or private "problems" are never fully "solved" by any political party or any particular leader. Rather you and I must come to grips with them as best we can in a continuing process. Sometimes this will be by ourselves, more often in cooperation with others through private and public organizations.

It may mean helping our children with homework rather than watching TV . . . taking the trouble to be an informed voter rather than damning the politicians . . . knowing where our children are instead of condemning the police who caught them at vandalism . . . taking our share of the burdens of a democracy instead of seeking a good time.

All of us wish for simpler answers . . . for political leadership with magic solutions, for a Santa Claus who provides goodies without effort on our part, for approaches that won't demand very much of us. We wish in vain.

PUREBRED CATTLE

It was my privilege the other day to sit in on a meeting of top dairymen, all members of a dairy breed organization. The topic being discussed was how better to merchandise purebred cattle.

I couldn't help but admire the frankness shown by these men in discussing the arguments advanced against, as well as for, the purebred. For instance, one man pointed out that the average purebred of this breed produces a thousand pounds more milk a year than the average grade cow. He commented that, at four dollars a hundred for milk, this superiority in milk production only pays off to the tune of $40 annually.

It was agreed that the greatest source of added value of a purebred over a grade is the higher purebred sale price when sold for breeding and milking purposes. This sale value, of course, is dependent upon a widespread belief that the higher price is justified; that widespread belief is in turn dependent upon the continued existence of that higher price. Obviously, some dairymen are willing to pay considerably extra for a pedigree and some are not.

How about you dairymen who read this? I'd appreciate a letter from you about how you stand on this purebred vs. grade dairy cow question. Why do you have, or want to have purebreds . . . or why don't you have them and don't intend to?

Please be as brief as possible, and completely frank in expressing yourself either way. If you'd rather not have your letter considered for publication, so indicate and I'll respect your request. Just send it to Editor, American Agriculturist, Box 367, Ithaca, New York.

VOCATIONAL TRAINING

We need to shift gears faster in the Northeast to provide vocational training for professions other than farming for more rural youth. Let's face it, the majority of young people growing up on farms will not be farmers, and the percentage of rural non-farm young people who will become farmers will be even smaller. Some uninformed experts to the contrary, this doesn't mean that agriculture in the Northeast is a dying industry. Total production of northeastern agriculture continues as high as ever, but it is being turned out by far fewer people in this age of mechanization.

There are many boys and girls who will drop out of school if they have no other choice than an academic program. Many of them would complete high school if vocational training were available in such things as auto mechanics, cosmetology, electrical work, etc.

We can't afford to see this valuable resource go to waste. The added cost of such vocational training will be repaid many times to society as trained workers move into the labor force rather than being included in the ranks of the unemployed.

EVERY LITTER BIT HURTS

One of the puzzling things about the species homo sapiens (you and me) is the change that comes over us when we're not at home. Around our own place we wouldn't think of throwing bottles on the lawn, facial tissues in the driveway, or crushing out cigarette butts on the floor. Away from what we (and usually the bank) own, though, we become entirely different . . . like Dr. Jekyll and Mr. Hyde.

Anyone traveling the roads of the land can tell Americans have been there . . . beer cans in the streams, tons of paper along the road, junk of all kinds hither and yon. Farmers ruin mowers on such flotsam, and in general gnash their teeth at the "tossing traveler."

What's so tough about being courteous to other property owners, instead of just to ourselves around our own place? Can't you and I grow up enough to help keep America beautiful everywhere? To humble the pride, and to make the world a bit better place to live, I've found nothing beats picking up every day at least one item carelessly tossed out by someone else.

Try it!

COMPETITION IN COMP

Did you know that the logger and sawmill operators of New York State have to pay a workmen's compensation rate of 21 percent? That is, for every $100 of gross payroll, they must kick in $21 for "workmen's comp" — a fund used for protecting employees against injury and disability suffered from accidents while on the job.

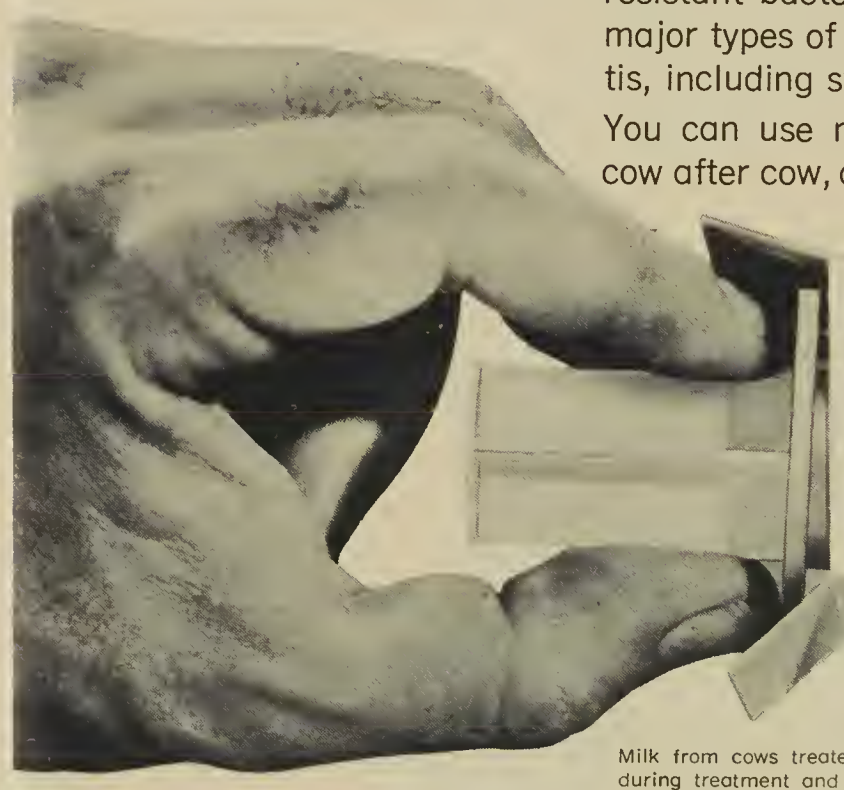
Now I am told that the rate for comparable employees in Pennsylvania is 7.5 percent, and in Vermont 7 percent. It is tough for the Empire State's forest industry to compete against that large a spread in payroll overburden. It tends to result in having some forest product corporations headquartered in New York City, but conducting forest operations primarily in states like Vermont or Pennsylvania, where regulations are not nearly so demanding.

from the HESS & CLARK animal health center

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IF *NEW* Medifuran was your mastitis treatment

Now you can use a mastitis treatment that lets you sell milk 24 to 48 hours sooner. Discard milk for only 48 hours after treatment. It's new Medifuran: The first new mastitis drug on the shelf in six years!



New Medifuran* already has proved its effectiveness in research tests and on dairy farms like your own.

Medifuran is based on a new nitrofuran, furaltadone. It will not promote the build-up of drug-resistant bacteria and is effective against the major types of bacteria that cause most mastitis, including staph organisms.

You can use new Medifuran time after time, cow after cow, and continue to get good results.

Important:

New Medifuran lets you start selling milk one to two days sooner. You only discard milk for 48 hours (4 milkings) after treatment. So the extra milk you sell more than pays for the slight extra cost of Medifuran . . . in fact, usually pays for the entire treatment!

Try new Medifuran. It probably comes closest to being the mastitis treatment you've always wanted.

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FOR MASTITIS

*Contoins Volsyn, brand of Furaltodone of the Norwich Pharmacal Co.

Milk from cows treated with Medifuran for mastitis should not be used for food during treatment and for at least 48 hours (4 milkings) after the last treatment.

HESS & CLARK
ASHLAND, OHIO

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Deal NOW...trade HIGH...save BIG!

Now's the time to corral those tired old "horses" you plan to trade before next spring. They're worth more **now** to your Ford tractor dealer. He wants those trade-ins early to keep his service people busy during the winter. He wants to have a full supply of good reconditioned tractors for the big spring demand. So—he's TRADIN' HIGH to give you big pre-season deals NOW.

These are straight top dollar deals! No complicated plans. You trade now, you save now on any size or model in the whole Ford line. If the model you want is not in stock, equipped just the way you want it, we'll get it to you **factory fresh**—shipped dealer-direct by Ford's fast tractor-automobile delivery system.

Yes! It pays to trade early:

- **Your old tractor is worth more now**
 For trading purposes it will be a **year older** by next spring
- **Income tax benefits**
 Purchases made NOW can be important factors in your 1964 return.
- **Avoid winter worries with your old tractor**
 New Fords are delivered completely winterized
- **Head off rush-season buying risks**
 The model you want, equipped as you want it, may not be in stock at today's prices next spring.

FORD

Now is a good time to
TALK TURKEY
with your Ford tractor dealer!

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ANDOVER—Nye Tractor Sales, Inc.
ARCADE—Larry Romance
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BATAVIA—Tri Co. Imp. & Equip., Inc.
BATH—Jones Ford Equipment Sales
BEDFORD HILLS—
H.A. Stein Tractor & Equip. Co., Inc.
BERGEN—Morley Tractor Service Corp.
CANANDAIGUA—Don Howard's 5 & 20
CATSKILL—R. C. Lacy Co.
CLARENCE CENTER—Yoder Brothers, Inc.
CLINTON—Clinton Tr. & Implement Co.
CLYDE—Mead's Tr. & Implement Co., Inc.
CORTLAND—Cain's Tr. & Implement, Inc.
CROPSEVILLE—Brown's Garage
DANSVILLE—Andy's Ready Mix
DEPAUVILLE—Carl C. Fry, Inc.
DUNDEE—Dundee Motors
EDEN—Nobbs Tractor & Implement Corp.
ELLENBURG—Nephew's Garage
ENDICOTT—Newing Equipment Corp.
FAIRPORT—Jennings Ford Tr Sales, Inc.
FORT PLAIN—Duesler S. Garage
GOUVERNEUR—Dodds Motor Corp.
GRANVILLE—Scott Tractor & Implement Co.
GREENWICH—Greenwich Tractor Sales, Inc.
GROTON—Woods Tractor & Implement Sales
HAMILTON—Hamilton Farm Equipment Co.
HANNIBAL—
Midway Garage & Machine Shop
HERKIMER—Valley Tractor Sales & Service
HIGHLAND—W. E. Haviland, Inc.
HONEOYE FALLS—
Shaw-Lewis Tractor & Implement Co.
HORSEHEADS—Van Dusen Equipment Co.
HUME—Rickets Farm Supply, Inc.
INTERLAKEN—Doane's Ford Tractor
JAMESVILLE—Craner Tr. & Implement Co.
KENNEDY—Kennedy Tr. & Implement Co.
KINDERHOOK—
Kinderhook Farm Equip. Co.
LISBON—L. H. Flack
LITTLE VALLEY—
Armes Tractor & Implement Corp.
LIVINGSTON MANOR—
Liberty Tractor Co., Inc.
LOCKPORT—Yoder Bros., Inc.
LOWVILLE—Nortz & Virkler, Inc.
MALONE—Franklin Co. Farm Supply, Inc.
MEDINA—Albright's Garage
MIDDLETON—Butler Tr. & Equip. Co.
ODESSA—Harold Habens
ONEONTA—East End Cattle Sales, Inc.
PALYMYRA—Newark Tractor & Implement
PANAMA—Whitney & Wood
PENN YAN—Leo J. Del Rossa
PERU—Peru Farm Center, Inc.
PINE PLAINS—H. L. Merritt, Inc.
PORT HENRY—Belden & Edwards, Inc.
PORT JERVIS—Deerpark Tr. & Equip. Co.
PORTVILLE—Foote Tractor Co.
PULASKI—Crocker Tractor Sales, Inc.
REMSEN—Evans Tr. & Equip. Co., Inc.
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RICHFIELD SPRINGS—
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ROME—Evanciew Tractor Sales, Inc.
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SODUS—Dehondt Implement Co.
SOUTH GLENS FALLS—Rt. 9 Motor Service
STAMFORD—Eklund Farm Machinery Sales
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HAMMONTON—Dual Motor Sales
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Cherry Valley Ford Tractor Sales
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A CASE STUDY IN MANAGEMENT

by C. D. Kearl*

Here's the inside story of the dollar and management decisions on a successful dairy farm.

How would you like to work 2,311 hours and receive a labor income of $12,016 for doing it? Last year cost account dairy farmer number 434 in Cayuga County, New York, did that with an average of 66 cows. This farmer and his part-time hired help worked about a 44-hour week to care for the cows, grow the feed for them, raise some wheat as a cash crop, and even build such capital improvements as free stalls in a pen barn.

Farmer 434 has a good but not impressive farm; it is what he does with the farm that is impressive. It consists of 185 acres of good cropland — mostly Honeyoe and Lima soils — and a few acres of pasture and woods. There is a free stall barn and a double-four herringbone milking parlor that will handle cows at the rate of 90 every two hours. Only corn silage was fed as roughage in 1963. It was stored in concrete stave silos, one 20' x 50' and the other 26' x 40'.

Big Investment

The farmer's investment in 1963 averaged:

Land and buildings	$46,150
Livestock	20,935
Equipment	11,873
Feeds and supplies	5,787
Growing crops	2,034
	$86,779

He started the year with 64 cows and 29 heifers. The heifers freshened or were sold, and at the end of the year he had 75 cows and 7 soon-to-freshen heifers. There are more than 90 milkers on the farm now.

To summer-feed his herd last year the farmer used 27 acres of permanent pasture and 71 acres of rotated cropland pasture. His winter forage came from 69 acres of well-eared corn silage that yielded 13 tons per acre. He harvested the tag ends of his corn land for grain — and lost money doing it. He grew a few acres of wheat as a cash crop.

The farmer fed 9.2 tons of corn silage per cow, and gave his cows access to good pasture all summer. The grain feeding was a little below the 1962 New York State cost account average, with 4,467 pounds per cow. With his good roughage and pasture program, however, production per cow was excellent, averaging 13,100 pounds (Table 1).

1. QUANTITIES AND PRICES

Item	Farmer 434 1963	New York State cast account average 1962
Quantities per caw:		
Labar (haurs)	31	76
Hay (tans)	-	2.6
Silage (tons)	9.2	7.9
Grain (paunds)	4,467	4,528
Milk (paunds)	13,117	12,163
Prices:		
Labar (per hour)	$ 2.22	$ 1.65
Hay (per tan)	-	26.20
Silage (per ton)	10.00	7.95
Grain (per ton)	67.89	63.44
Milk (per cwt.)	4.23	4.35

The combination of silage feeding, free-stall barn, herringbone parlor had an almost unbelievable effect on the amount of time required to care for a cow. With a silo unloader and an auger feeder to feed the cows while he was doing other work, with no need to fasten and unfasten cows to get them through the parlor, and with the herringbone parlor arrangement to turn the cows into and out of the parlor in batches, farmer 434 could minimize the work. And minimize he did! He spent only 31 hours to care for a cow for a year.

This farmer had a little higher price per ton for grain than the cost account average. He used a high-protein supplement with his all-corn silage forage. In part he was able to compensate for the added cost of protein in winter by feeding low-protein concentrates during the summer months when the herd was on pasture. The corn silage, too, was entered into the accounting procedure at $10 per ton, higher than average. In spite of this, and even though the cost for pasture was high, only $284.04 per cow was spent for feed and bedding (Table 2). If the corn silage had been charged at cost of production, the feed cost per cow would have been only $238.82.

2. COSTS PER COW

Item	Farmer 434 1963		New York State cost account average 1962	
Costs:				
Grain	$151.66		$143.64	
Hay	-		68.11	
Silage	92.44		62.77	
Bedding	8.90		6.46	
Pasture	31.04		11.50	
Other			.06	
Total feed and bedding		$284.04		$292.54
Labor		69.82		125.38
Depreciation on cows		49.55		32.76
Auto, truck, tractor	9.59		7.16	
Dairy equipment	22.54		24.17	
Buildings	34.56		25.64	
Interest on cow investment	13.71		15.10	
Breeding costs	5.51		5.95	
Veterinary, medicine, etc.	3.87		9.98	
Milk hauling			15.62	
DHIA			4.60	
Light, water, power	10.03		8.15	
Supplies	4.25		4.53	
All other	11.72		16.92	
Total miscellaneous		115.78		137.82
Total cost		$519.19		$588.50

Depreciation on cows was high and some mistakes were made. The farmer has been purchasing most replacements and expanding his herd. He'll continue to do this, but will pay more attention to the kind of animals he buys. He estimates that one "old cow" purchase of several head that did not fit into his housing arrangement cost him $1,000. From now on he will buy heifers that have not developed the wrong kind of habits and, with today's generally good breeding, he is more apt to get good production out of untried heifers than he is out of cows that "someone is selling" — even if he does look them over carefully.

Culling of cows was for a variety of reasons. Low production, bad habits, health problems, age, three teaters, slow milking, and even such a nebulous reason as "nuisance" come into the picture. When you are trying to produce milk efficiently and cheaply, you cannot afford to put up with a "nuisance" cow. Farmer 434 lets someone else bother with her and puts an animal in her place that fits the system.

With this philosophy of culling, the farmer expects his cow depreciation to be high, but he feels this is more than offset by being able to handle his cows more efficiently — and thus handle more cows with lower labor costs.

With his new mechanized cow-handling system one would expect building and equipment costs to be high, and they were a little; this tended to offset some of the gain in labor efficiency.

Farmer 434 had low vet and medicine bills. He sold some cows rather than try to treat them, but basically he did not have much trouble.

Fortunately, he still has the advantage of free milk hauling as dairymen are being encouraged to shift to bulk tanks; thus he had no charge for hauling. Some approve and others decry the fact that there was no expense for DHIA. Finally, there was a lower cost per cow for the odds and ends that go into "all other."

Returns and Profit

The total returns per cow averaged $574.77. With his cost of keeping a cow at $519.19 farmer 434 made a profit of $55.58 per cow. In considering this figure, though, it must be remembered that he had already taken a bookkeeping "profit" on corn silage

(Continued on page 35)

*Professar af Farm Management, Carnell University. Professar Kearl supervises a system af detailed farm cost accounts in cooperatian with a number af Empire State farmers.

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For difficult mastitis infections. Utilizes the hormone Hydrocortisone to reduce swelling, get faster and better broad-scale results from a potent blend of two sulfas and antibiotics. Disposable-use, sterile plastic syringes in economical 12-pack.
Milk must not be used for human consumption for 72 hours after latest treatment.

UDDER LOTION

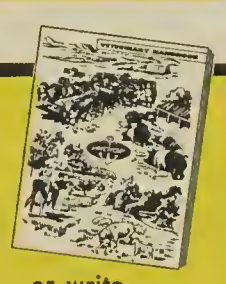
For treatment, prevention of chapped and cracked teats and aids in prevention of mastitis, by reducing the number of common mastitis-causing organisms present on external surface of teats. Routine use aids in keeping teats soft and pliable and in more rapid healing of minor cuts. Because of long-lasting bacteriostatic action, wash teats thoroughly before next milking.

SUL-MYCIN

Checks calf scours. One Sul-Mycin Bolus orally usually achieves dramatic results in curbing calf scours. Effective against both infectious and non-infectious scours. Combines two sulfas with antibiotic dihydrostreptomycin to deliver broad action, pectin to soothe intestinal linings, activated attapulgite to firm intestinal content and adsorb toxins and viruses.

KETOSIS CURE

Now you can clear up ketosis, or acetonemia, cases more quickly with Anchor Ketosis Cure. Used as a drench or with feed, Ketosis Cure works in a natural way to re-establish normal metabolism—longer lasting—more effective than just dextrose. For treatment or for prevention—may be just what you need where dextrose solution, sugar, and cortisone have failed.



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Whoops I Goofed!

Poultrymens' Success Stories in Reverse

by Johnny Huttar *

WHEN DID YOU last check your layers for lice or Northern fowl mites? Are your water troughs getting a little slimy? Do you smell ammonia when you first step into the laying house? Did you get a little busy repairing the chain on the mechanical feeder and skip one egg gathering? Did the number of cracked eggs and dirties go up as a result?

Have you looked at the litter alongside the feed troughs lately to see how much feed the birds are billing out? If you saw more than you'd like to, what did you do about it? When did you last remove the wet, caked litter around the water troughs? Are you sure you know how to debeak birds right, so they won't pick in cages?

About now I can see some of you frowning and a little impatiently asking yourself, "What's Johnny trying to do . . . give us ulcers or just trying to tell us we're not as good poultrymen as we think we are?"

Neither. I'm trying to see if I can be helpful by reporting to my poultrymen friends some of the actual cases which I see on farms that rob them of income . . . sort of success stories in reverse. Some of these things are definitely exceptional, and I only report them because their effect was almost disastrous. Of course, I've been careful not to use actual names or pinpoint locations.

Seen Often

Most of the things I plan to report are of a common nature, which I have seen over and over in my years of farm visiting. They're the kind of things which are so elementary that experienced poultrymen may not take them seriously. Let me give you a "fer-instance."

About a year ago I had a call from a poultryman who has for over 30 years done very well indeed producing eggs for market. He got his entire income from them . . . and it's been a good income. By anybody's standards you'd have to call him a good manager and operator.

Over the phone the conversation went something like this . . .

"Johnny, I've got some trouble in the big house which has me stumped."

"What kind of trouble, Joe?"

"Nothing drastic, but production is gradually going down when it should be going the other way. A few birds look kind of dumpy . . . a few more each day."

"You know the symptoms of blue comb, Joe. You had it two years ago."

"That's right, but the birds don't act that way."

"It could be hepatitis. You remember your neighbor there had it last year. He asked you to look at his flock and you asked me to go with you."

"Yes, I remember, and I thought about hepatitis, but this sure looks different. The birds aren't dying, but simply act as if life could be more beautiful. Johnny, I've thought of everything I know, but this must be something new. Is there a chance you could come and look at them in a day or two?"

"Well, you're not so far away; I'll make a special trip. At any rate I can bring some birds back to the Vet College. I'll be over this afternoon."

"That would be fine, Johnny, and I'd appreciate it."

Guess What?

To make a long story short . . . on the way over I got to thinking about such simple things as worms, lice and mites. When I got there I picked up one of the dumpiest birds. While I was looking at her head, the little rascals started crawling on my hands. I took a look at the fluff on the abdomen and . . . boy oh boy . . . was she plastered with lice!

You can imagine Joe's embarrassment.

"I've had a commercial flock of hens for 37 years and I have to call an 'expert' to tell me my hens are lousy," he moaned.

I could fill up this whole magazine if I went into so much detail reciting case histories. I'd get tired and you'd get bored; so let me try it this way. I'll try to cover as many of the "income robbers" which I've seen . . . and still do . . . most often, by categories such as common diseases, ventilation, feed problems, financing, etc.

I guess I've covered lice and mites with Joe's experience. Let me just add that many poultrymen let them get too big a start. Incomes would improve for many if they made a faithful check of their flocks once a week for these little blood suckers.

Worms — You practically never see them in cages, but floor birds on old dirty litter still show quite a few cases of infestation. Think about them and if you suspect them, take some suspicious specimens to a laboratory.

Coccidiosis — is still the most common disease of growing pullets. I have never seen a case in cage layers, but hens on the floor have this problem fairly commonly, especially if the litter gets wet. Extra trouble may come from this because an unchecked case becomes a real stress, and definitely aggravates the virulence of the No. 1 income robber in laying flocks, which is:

Leucosis — In spite of the tremendous amount of scientific study which has been, and is still being conducted on this disease, no sure-fire control program has yet been discovered. There are some things which poultrymen can do to reduce this problem, however. Putting it the other way, here are the things I most often see them fail to do.

Cleaning and disinfecting houses thoroughly between flocks of pullets and layers.

Relieving stresses from disease, parasites, high temperatures, inadequate feed and water supplies, etc.

Raising strong, healthy pullets and protecting them against Newcastle and bronchitis. If I had to name the most common producer of serious leucosis problems it would be a poorly raised bunch of pullets. This situation has been aggravated by the traffic in started pullets.

Now let's go to another category . . .

Insulation

Good hen house insulation commonly accounts for a saving of as much as a half pound of feed per dozen eggs produced. Did you know that this much saving increases the net income in producing market eggs just as much as would a $4.00 per ton drop in your feed bill?

There are more hen houses with inadequate insulation than those which are O.K. The information is available on how to insulate a hen house right; it will quickly repay its cost. See your county agent or poultry serviceman.

Ventilation — I suppose you all read about the big disaster which occurred on a large poultry farm when the fans were turned off in the windowless cage houses on a sub-zero and windy night. They were left off by mistake all night. In the morning there were 53,000 dead hens.

This was spectacular, yes, but a month earlier I dropped in on Poultryman X, who only had 6,000 in a similar house. I found him holding his head; he soon told me his troubles.

A severe storm caused a three-hour interruption in his electric service. He had no stand-by generator. There was only one door . . . too small . . . and no windows or other openings he could use to remove the intense heat generated

(Continued on page 22)

*Director of Poultry Industry Relations, Agway, Inc.

single beater spreader

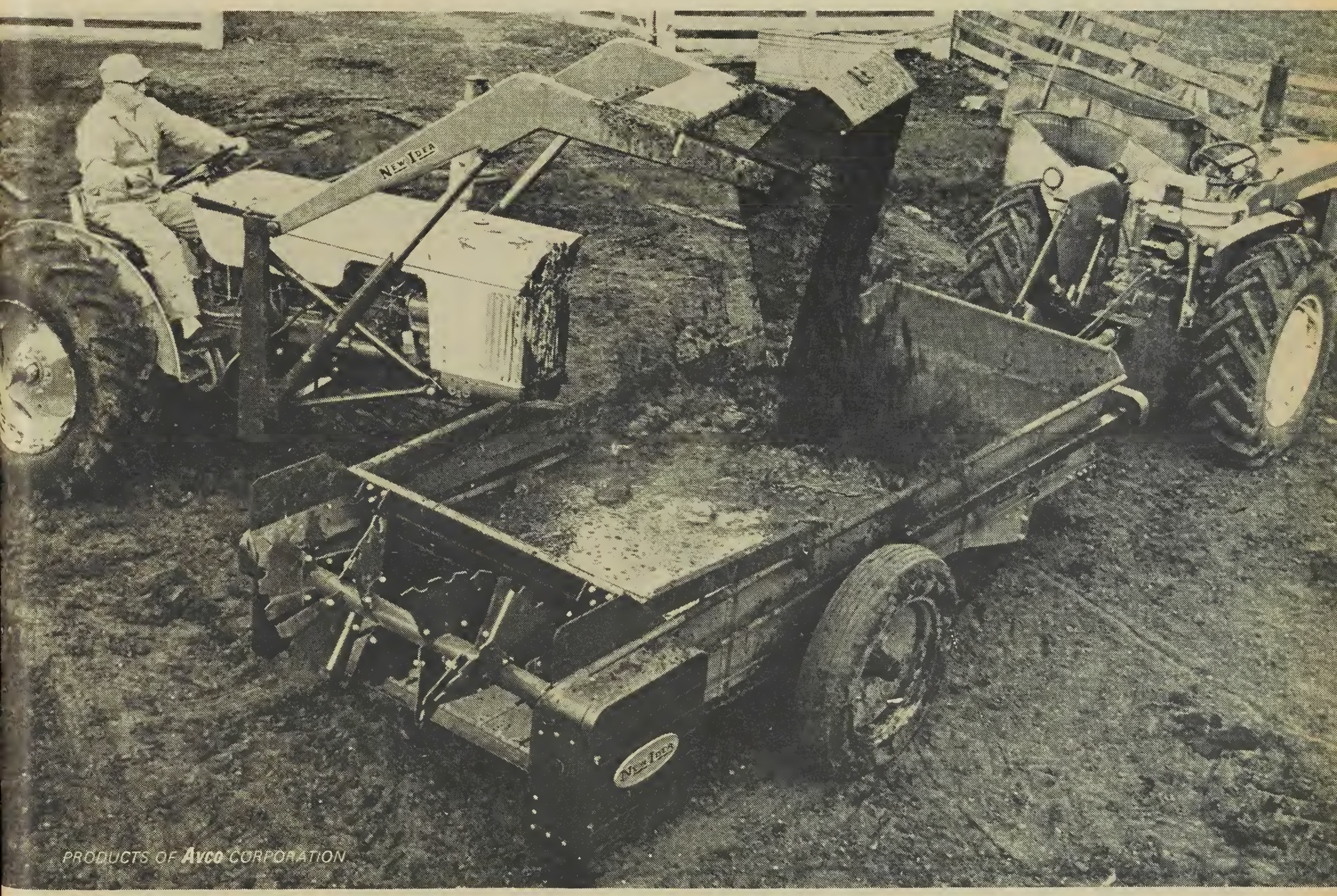
New Idea handles any type manure, in any kind of weather!

Only these New Idea single beater spreaders have this exclusive paddle design — 12 special paddles, scientifically designed to shred manure finer and hurl it outward in a wide uniform pattern. Self-cleaning paddles are individually replaceable.

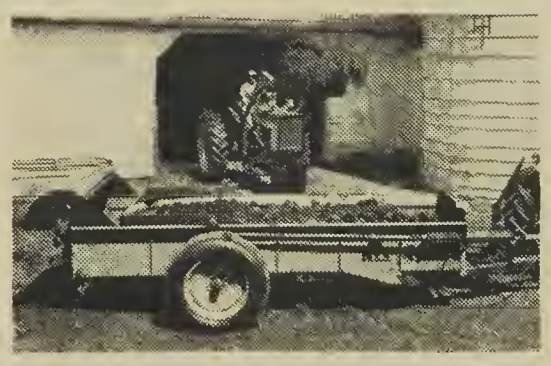
Like all New Idea spreaders, the sides and bottoms are made of wood, which years of experience and exhaustive tests has proved to us to be the most resistant to manure acids. We use clear yellow pine, treat it with a preservative, then spray it with hot paint.

A unique hydraulic endgate is available to keep valuable liquids inside the spreader 'til you get to the field.

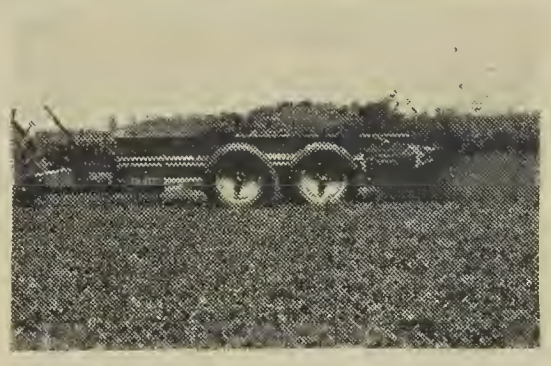
A powerful partner for any New Idea Spreader, is the brand-new New Idea Loader (shown below). Radically improved, it has the power and performance you want in a farm loader. It's ruggedly built, with mechanical bucket control. The tine bucket can be quickly converted to dirt or snow bucket. You'll like its low price, too. See these, and other fine machines at your New Idea dealer today. Or write: New Idea, Coldwater, Ohio .



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NEW IDEA

where bold new ideas pay off for profit-minded farmers



Fred Nagel

HAMLET FARM

We operate 396 acres of land, with a herd of 66 cows and 75 head of young cattle. In 1964, we had 120 acres of corn to fill our three silos (one 20 x 60 and the others 14 x 50) . . . with 25 to 30 acres left over to pick. There is one unloader that transfers from one of the small silos to the other; another unloader handles silage from the big one.

In the winter, we feed grain before milking in the morning, then silage in the outdoor feeder while cleaning the barn and bedding down the cows. Next comes hay when the cows return to the barn, and another feeding of hay around noon. The heifers, by the way, are also fed all the silage they can eat during the rest of the day in the outdoor shaker feeder, after the cows come back into the barn. In the evening, silage out of one of the small silos is fed in the barn, with grain on top of it; one last feeding of hay ends the day.

During the summer the cows run on a 22-acre pasture lot along a creek behind the barn, but also have access to silage every morning and again in the afternoon. If silage runs out, hay is fed on a similar schedule, also in the "shaker" feeder, where the entire 80′ trough oscillates and moves roughage from one end to another.

This feed bunk area has a 16-foot concrete apron on each side to keep cows clean; it was money well spent. On each side just below the feed trough is a curb 8″ high and 12″ wide that prevents cows from being "bossy" while they eat; it also stops cows from backing up to the feeder "bank" and making a deposit. The "boss cow" hasn't been a problem with the feeding arrangement, and we think free choice silage once a day during the winter gives each cow as much as she wants . . . in contrast to barn feeding, where the tendency is to give each cow the same amount.

There are two full-time hired men here at "The Hamlet," giving me a chance to be away now and then. I was born in Germany and came to this country in 1939. A few years ago our whole family went back to Germany to visit and were gone from the 25th of July until Labor Day, but everything here at the farm went along okay.

One man has been with me seven years, and one who left not long ago was here eight years. We always plan to finish work at 6 p.m., even in the summer; if they work extra, I pay overtime. They get one week's paid vacation every year during the summer months, and every third Sunday off. Besides, the three of us do chores Saturday mornings in the winter, and then the men are free in the afternoon until chore time. They get milk and beef from the farm, good livable houses, a Christmas bonus, and an incentive system of extra payment hooked to the size of the milk check. In addition, I pay the local part of their phone bill and part of their electric bill.

They're paid each Friday morning right after milking because Friday is the big shopping night. We don't have a set policy on sick time; I figure if a man is sick, he can't be expected to work. If a man wants time off to go deer hunting, or if he has to be late some morning for a special reason, I give him permission.

I try not to stay on their backs every second, but rather encourage them to go ahead with what needs to be done. In general, I don't ask them to do some dirty or especially hard job that I wouldn't do. — Fred Nagel, Wadsworth, New York

Personal Farm Experience

The items on this page all come from the firing line of farm production.



The new barn on the Millard Vaughn farm.

BARN BURNED

In July of 1963 our barn burned, apparently from faulty wiring. Fortunately, no stock was lost, but we did lose 3,600 bales of hay, and were faced with the job of building before fall.

I had some inclination for a pen stable with free choice stalls, but I figured I would have to install a milking parlor and didn't want to go into debt more than necessary. So we built a stanchion barn with the cows facing out — where they had faced in.

The old barn had stanchions for 30, and I couldn't put in a gutter cleaner without sacrificing a couple of stalls — and we had too few as it was. The new barn has stanchions for 36 cows, and they are wider and longer. We had plenty of udder trouble in the old barn.

This is essentially a one-man farm, though Dad helps with the haying. I plan to put up another silo and grow more corn, including maybe 1,000 bushels of grain to cut down our feed bill. Hay is a mixture of alfalfa and brome, which is heavily fertilized. The cows get hay the year 'round, also corn silage.

I had a lot of help in building the barn. County Agent John Page drew plans, and I hired a carpenter and two men, and of course worked myself. The local baseball team helped, Grange members put in a couple of days, and neighbors helped a lot.

Actually, I had considered remodeling because the old barn was not satisfactory. I had $6,000 insurance — which was probably all it was worth except for the hay. The new barn cost around $18,000. It was a loss, but I never seriously considered quitting. I don't want to work for somebody else. — **Millard Vaughn, West Arlington, Vermont.**

Editor's Note: Mr. Vaughn has a fine purebred herd averaging around 13,800 pounds of milk.

DIVERSIFIED FARMING

We produced 700 tons of cabbage in 1963 and sold it on a regular basis week after week rather than trying to hold it to make a "killing." Tomatoes used to be our big crop, but our bargaining cooperative didn't get together with the processors this year so we aren't growing any. More broccoli, cabbage, brussel sprouts, and snap beans take up the slack. Our harvest pattern most years works well, proceeding from cherries to snap beans, then progressively to tomatoes, broccoli, brussel sprouts, and finally cabbages.

Our cabbage storage is a 125′ x 36′ clear-span building with an earth floor that will hold 300 tons of cabbage stacked in pallet boxes four high. We think an earth floor works better than a concrete one for this purpose.

We have an irrigation system with two pumps and 8,000 feet of pipe; when both pumps are going we can water 6 acres at a time. We normally irrigate cabbage and broccoli for an hour after setting the plants, but if it's dry we let it run two hours. All vegetable crops are irrigated; we follow a schedule and put on water even if it appears plants may not need it right at the moment.

In addition to the vegetables, we have a sizable dairy herd and 65 acres of fruit. The equipment to handle all this includes 19 tractors, 14 trucks, and 5 power sprayers. We do our own mechanical work — including diesel equipment — in a fully-equipped farm shop. It was here we designed and built our own broccoli harvester at a cost in materials and time of $5,000. — **Michael, Charles, and Alexander Parzik, Spencerport, New York.**

SEVERAL ENTERPRISES

We operate 331 acres, about 300 of which are tillable. One of our enterprises is raising dairy heifers in cooperation with a cattle dealer who sells us the young animals and then buys them back just before freshening.

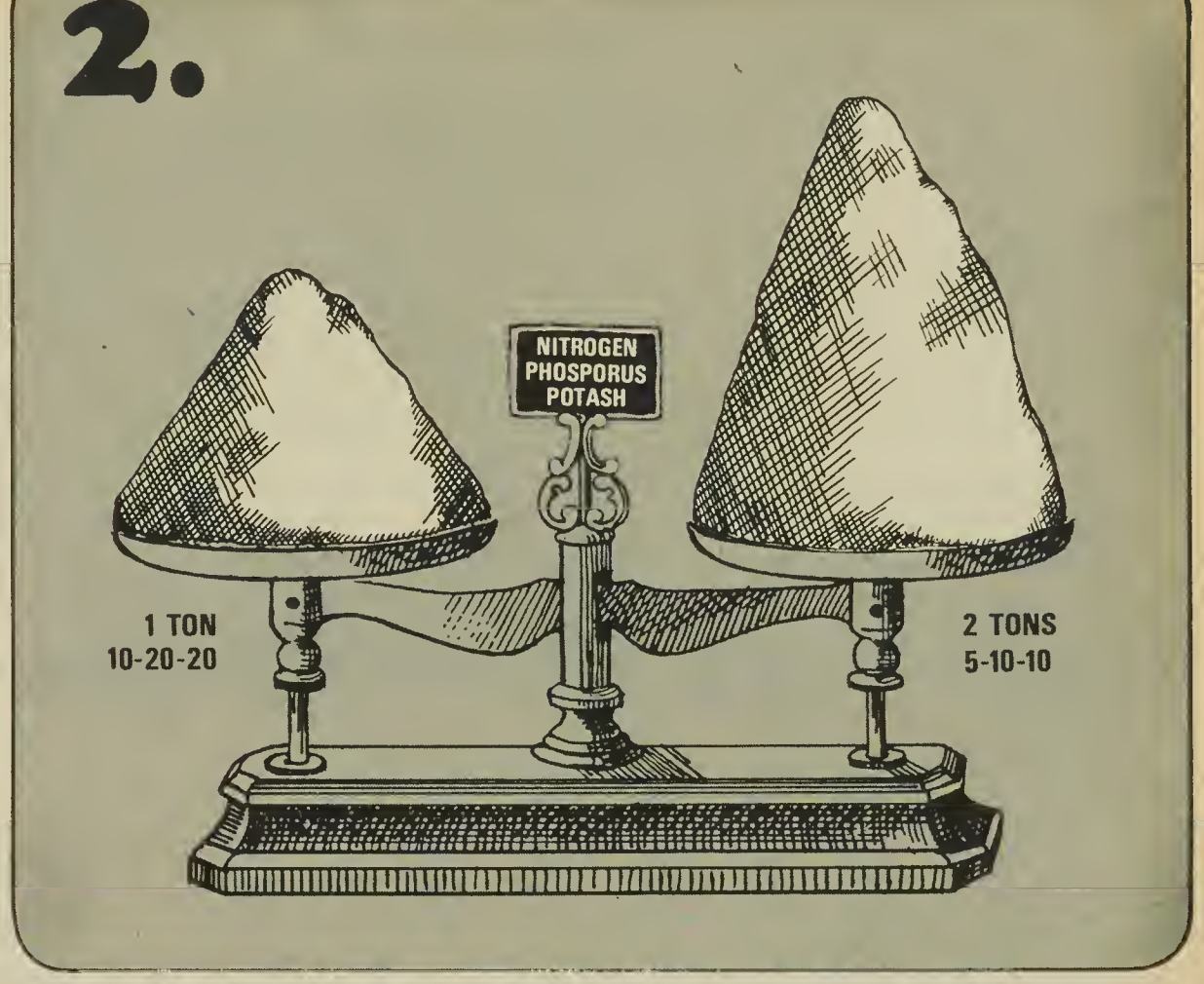
We also have 75 to 100 Montana ewes, selling lambs off pasture to a local butcher beginning the last of July and finishing off November 1. Columbia and Corriedale blood predominates in these western ewes; we use a Suffolk ram.

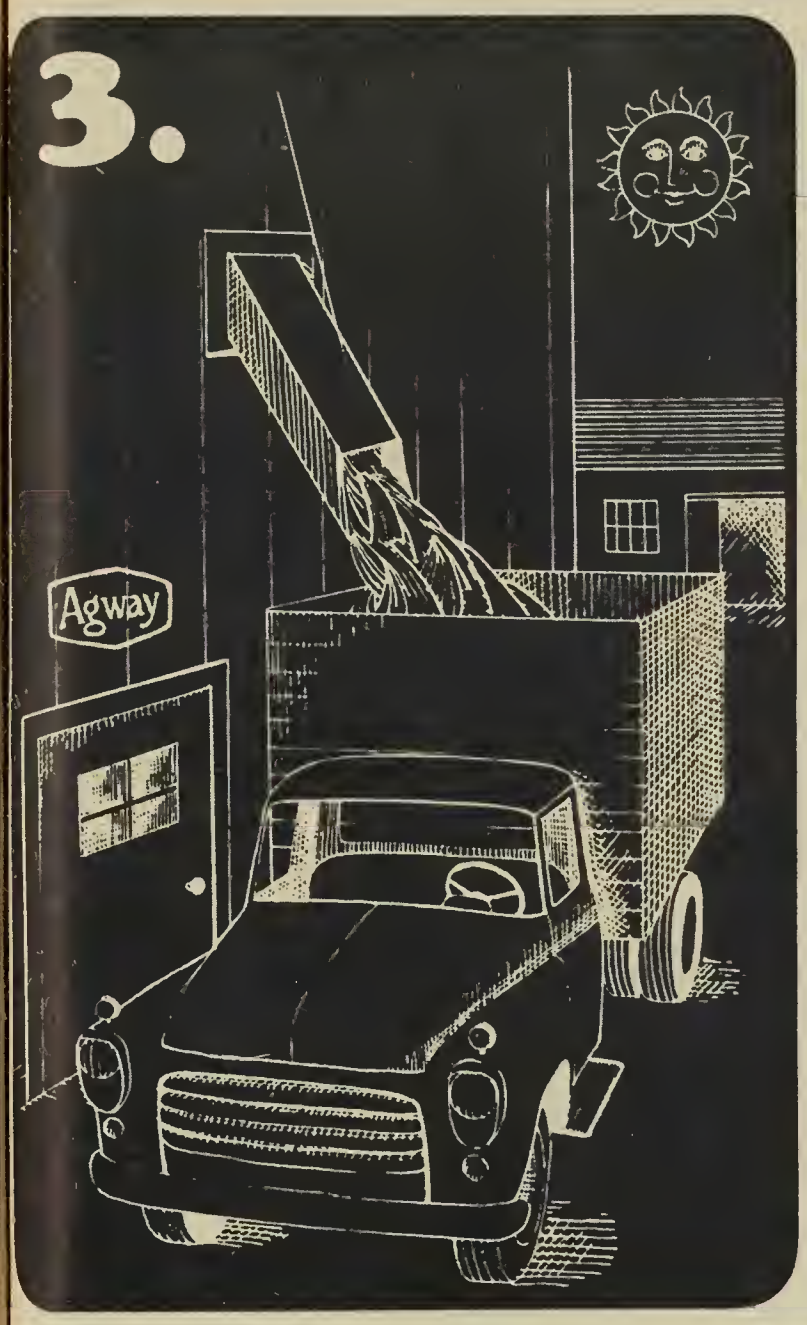
Most lambs are sold before being weaned and therefore get no drench for internal parasites. The ewes get drenched in spring with thiobenzol and again in the fall with phenothiazine or copper and nicotine sulfate. Phenothiazine is fed in the salt all summer. Lambs are castrated and docked some time between three days and two weeks of age.

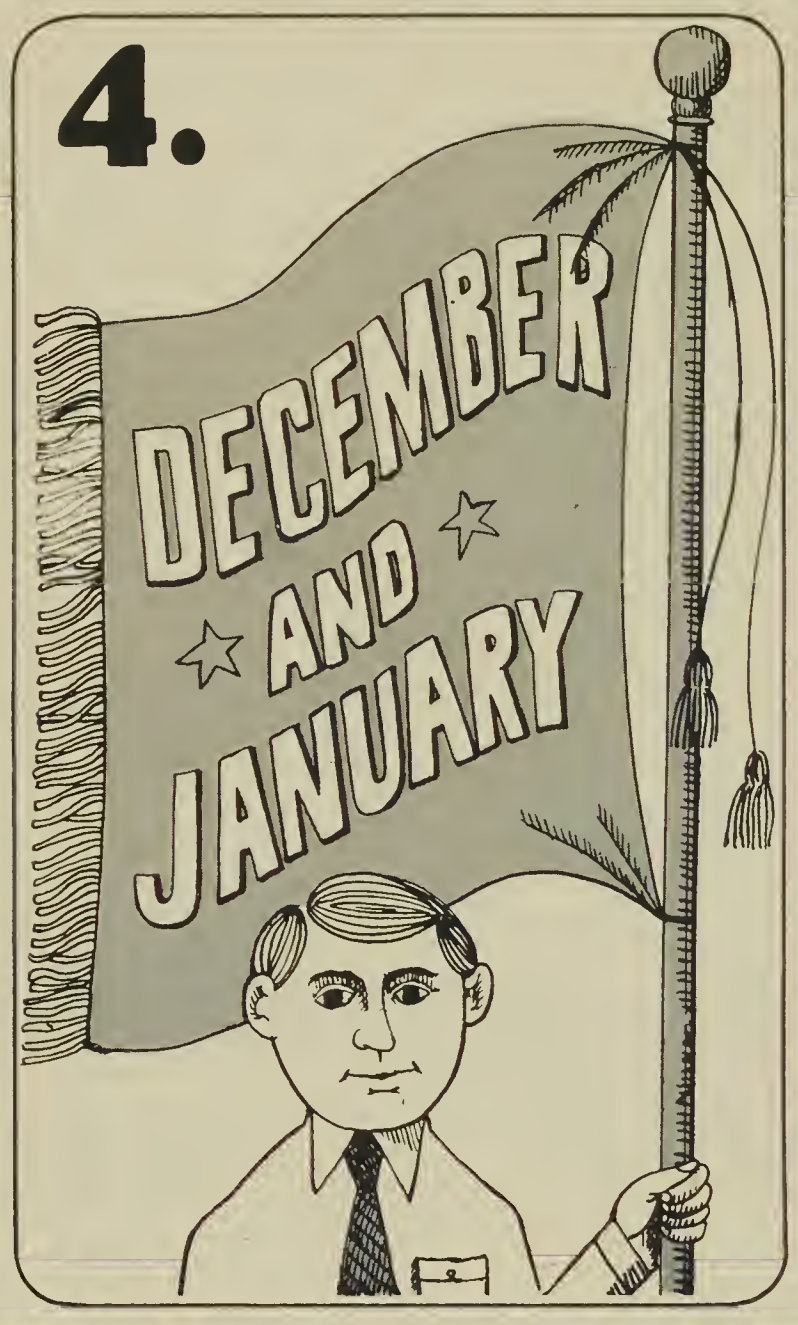
Rye straw has become a good cash crop in this area. We use it as a cover crop, save some of it for our own seed, and sell some straw to racetrack people. They like it because it hasn't been through a combine and manure

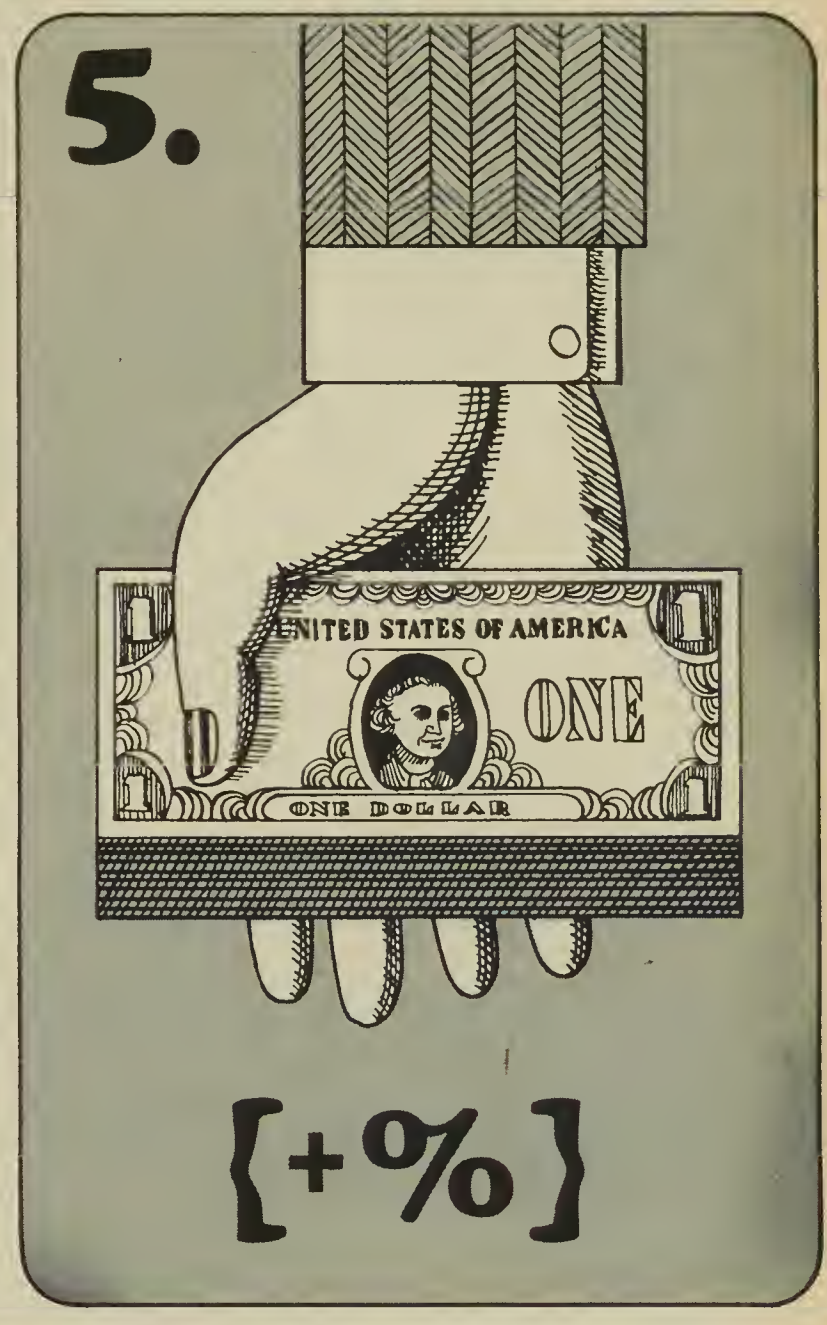
(Continued on page 18)











the new Agway:

Five ideas that can help reduce next year's crop growing costs

1. Begin by buying bulk fertilizer — from Agway. You don't pay extra for bags or multiple handling. And while you're saving these costs, bulk gives you more time to do the job right in the field — especially with Agway's bulk spreader service, a rented Lely spreader, or the hefty Ferti-Veyor system. You'll get more profits from better yielding crops.

2. Buy bulk in a high analysis grade. One ton of Agway's Ferti-Flow 10-20-20 grade, for example, contains the same amount of nitrogen, phosphorus and potash as two tons of 5-10-10. You get a big saving in purchase cost alone. And you'll handle less, store less.

3. Buy by the truckload. Use your own truck to transport fertilizer from any of Agway's plants and depots. There's one near your farm.

4. Buy early. Get the fertilizer you need during Agway's "early take" program and pocket extra savings again. Put an empty storage corner to work for you.

5. Pay early and save even more. Agway's "early pay" discount gives you a chance to gain an added return on your investment.

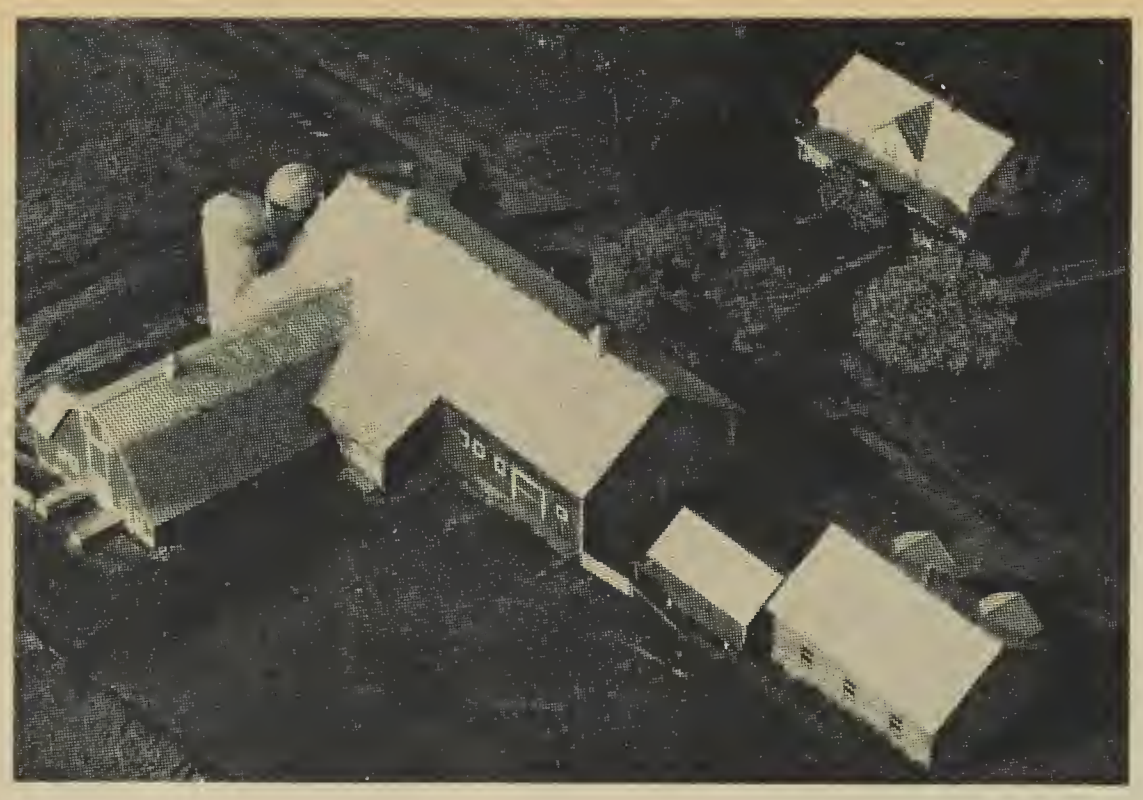
Five ways to get more out of your fertilizer dollar: buy bulk; buy high analysis; truck your own; take early; and pay early. From Agway you always get new ideas to make complete crop service add up to greater net returns for you. Watch these pages next month for details on Agway's winter discount program. *Agway Inc., Syracuse, N. Y.*

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FARM DOLLAR GUIDE

STARTER FERTILIZER on corn does better job than does fertilizer broadcast, even though latter method raised soil fertility levels throughout furrow slice. Corn apparently likes to get its feet into that "sweet band" of plant food.

IN RECENT MONTHS government has sold (at $1.37 per bushel ... lowest possible price) over 4 times as much CCC wheat as in same period in '63. It's charged that purpose was to penalize farmers who failed to sign up for government wheat program AND to head off possible increase in price of bread "before election."

DAIRY COW NUMBERS have declined 6% since 1960 in northeastern states; decline has been greatest in southern New England and New Jersey. In Northeast, production per cow has increased enough to more than maintain production. For entire U.S., drop in dairy cow numbers since '60 is 8%.

U. S. FALL POTATO CROP is 8% below '63 crop, and lowest since 1960. In contrast, Maine and Long Island crops are up about 3% to 4%.

APPLE GROWERS are studying the possibility of mechanical harvesting. One proposal (for fresh fruit rather than processing) is to set trees close to make hedgerows 5 feet thick and 10 to 14 feet high. Men riding at two levels on a trailer could pick apples to the center of the hedge, and do it more rapidly than from individual trees.

EGG-TYPE CHICKS hatched in New York from January 1 to August 30 were up 1% above same period last year. However, hatch in September was up about 16%. If continued, trend is likely to mean lower-priced eggs next spring and summer.

RESEARCH IN IDAHO shows best storage temperature for table potatoes (with or without sprout inhibitors) is 45°F. Tubers were mealier, whiter, and stayed firm and usable longer than when stored at 38°F or 52°F.

STUDY OF FARM RECORDS in Iowa showed higher returns to farmers willing to take calculated risks, who used credit wisely, who were most aware of changes in farming; in other words, those who paid most attention to farm management.

COST OF FEED IS IMPORTANT, with egg profit margins exceedingly narrow. Feed cost is big factor in determining cost of producing a dozen eggs. Frank Reed of the Maine College of Agriculture reports that poultrymen are paying prices varying as much as $10 to $12 a ton. Ingredient costs between poorest and best rations vary only $4 to $5, he says. Watch costs!

WINTER IS PLANNING TIME. A pad of paper and a pen may bring more profit in 1965 than a new piece of equipment.

IT WILL PAY to study income tax regulations in order to pay only the tax you should. For example, in '62 Congress added the "investment credit provisions" which provide that up to 7% of the cost of certain depreciable property (for example farm tools) is allowable as a credit against your tax.

The Farmers income Tax Guide should be available at banks and county Extension offices. Getting a copy and studying it will pay dividends. If you operate a big farm business, it may pay to hire a tax expert to help fill out your return.



"We have a 7-1/4-foot Killefer Disk . . . the "2010" handles it easily."



"These John Deere 2010's have all the right speeds."

A New York orchardman reports: Roger Gates has more than 100 acres in apples and cherries on the shores of Lake Ontario. Apples are of the fruit and canning varieties: Red Delicious, Baldwins, MacIntosh. Cherries are the red tart sour variety. When not working his orchard, Mr. Gates enjoys a typical farmer's hobby . . . tinkering with machinery in his well-equipped workshop. Whether you dairy or row-crop, you can get the inside story on "2010" performance from Mr. Gates.

"My "2010's" are big enough to handle any job I have. They're ideal for our orchard work; I use them for every job, including plowing for new tree planting with three 14-inch bottoms. We have heavy ground here but my two "2010's" move right along. They have plenty of power.

"We have a 7-1/4-foot Killefer Disk . . . that's a good load for a larger tractor . . . but the "2010" handles it easily.

"With the "2010's," I have all the right speeds for our operation. Fifth gear (4-1/2 mph) is just right for plowing . . . 4th gear in real tough going . . . and the engine doesn't pull down. I cover a lot of ground in a big hurry.

"Smooth is the word for the PTO, too. The "2010" powers a seven-foot rotary mower around our trees. And, of course, we use it to pull our sprayer.

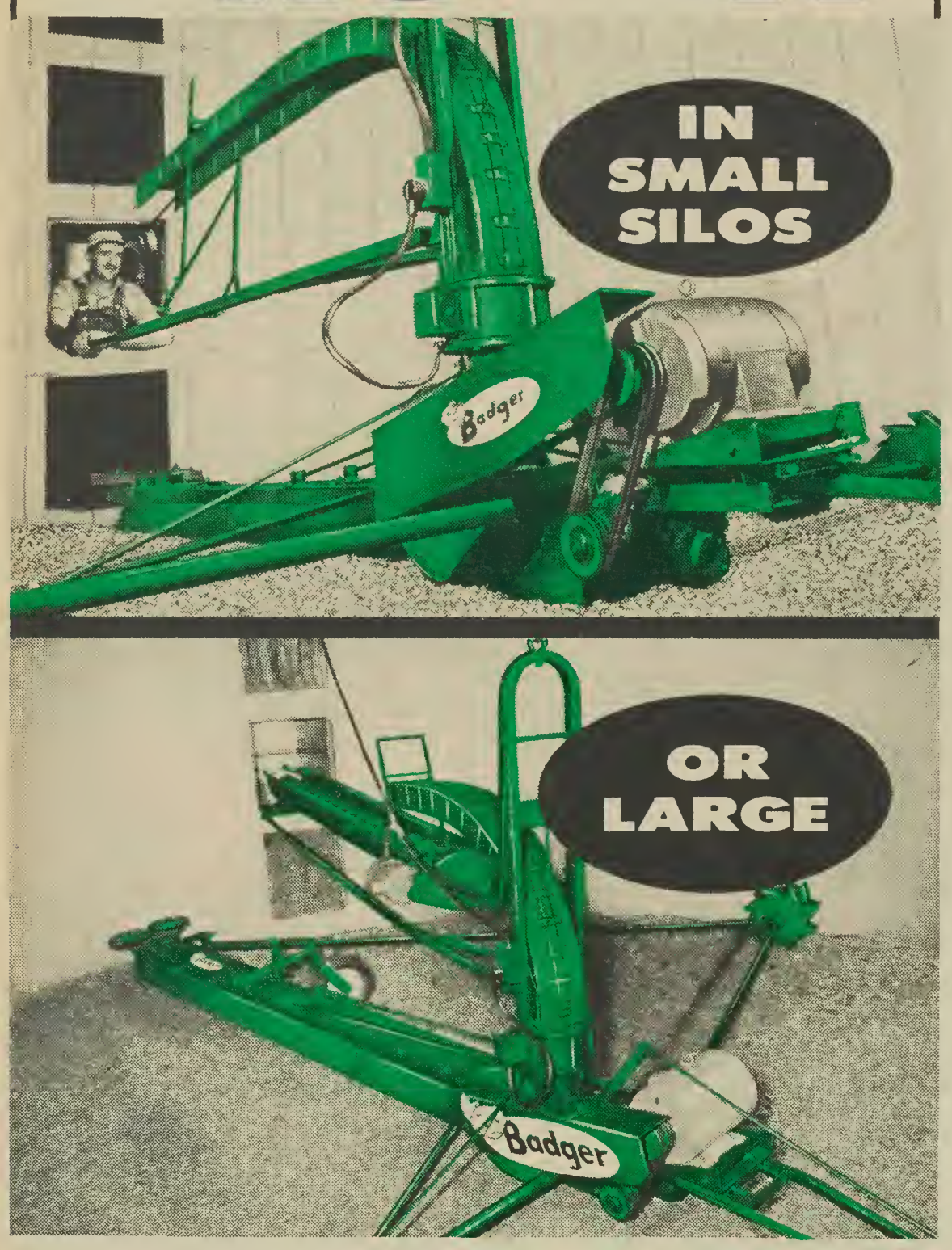
"This tractor is easy to handle and that's important to an orchardman. Wouldn't be without its power steering for working in and around trees. Fact is, the entire hydraulic system in this tractor is smooth and very sensitive.

"On top of all this, John Deere backs its tractors 100 percent. So, how could I go wrong, going with John Deere "2010's."

Whether your money-crop is annual or perennial . . . taken from above ground or underground, from trees or livestock . . . the John Deere name on a 45 h.p. "2010" is your assurance of dependable farming power. Versatile power, too, as Mr. Gates' experience proved. And there'll be a John Deere dealer around to keep it that way for as long as you keep your "2010." Want to try one before you buy one? Say "demonstration" to your dealer and he'll be johnny-on-the-spot, with a "2010" Tractor and a most attractive Credit Plan.

JOHN DEERE
Moline, Illinois

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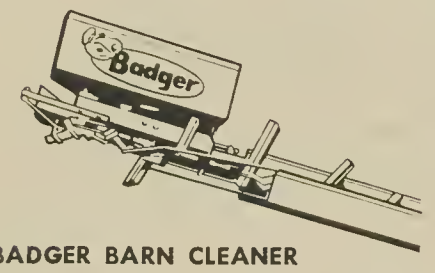
Badger Silo Unloaders pour silage down fast. They cut through the toughest frozen silage. They give years of trouble-free, day-after-day service. They save you time, make you money.

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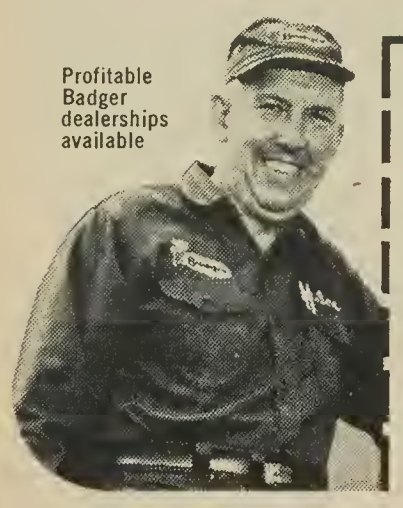


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THERE'S MORE THAN ONE WAY TO SKIN A CAT!



by Hugh Cosline

THE MANY possibilities now available for harvesting and storing roughages raise some big questions. What method or combination of methods should a dairyman choose in order to keep equipment costs within bounds? The question is complicated by the trend to summer feeding in bunkers rather than letting the cows out to pasture. Here also there is a choice between chopping green feed and hauling it daily or feeding grass or corn silage from a silo. Some dairymen even depend chiefly on dry hay for summer feeding.

The final decision as to what pattern to follow is determined largely by equipment requirements. For example, the manager of a one-man operation thinks a long time before he buys both a field baler and a field chopper. If you are faced with this problem, perhaps the actual experiences as told to me by farmers over the Northeast will be helpful.

Mr. A depends on a field chopper. He chops dry hay and stores it in a mow; also field-chops corn for silage. In summer he feeds mostly from the silo, but he can field-chop and feed daily to the cows if he wishes. He has more corn than the silo will hold and hires a picker for his grain corn.

Mr. B has mostly alfalfa for hay. He owns a baler and feeds dry hay in summer. He has no silo and hires his corn picked. He is thinking of buying a silo, but must weigh the advantages against the cost.

Mr. C has a sizable herd, so feels he can afford both a baler and a field chopper. Some years ago he stored corn silage in a big trench silo. Because it was a snow collector and because of too much waste he used it only briefly. He then bought two wood stave silos which now have been replaced with a glass lined air-tight silo. In addition to corn silage he plans to try putting up haylage.

Uses Haylage

Mr. D has already had experience with haylage. His cows are in stanchions but he has an automatic bunk feeder going from the silo to covered bunks. He has a grain storage next to the silos so he can add grain to the haylage or silage. He also grows a considerable acreage of corn for grain, some of which is harvested with a corn combine and stored in the air-tight glass-lined silo.

When you look at the problem from all angles, it boils down to cutting the production costs of a hundred pounds of milk. Primarily it is a question of permitting one man to care for more cows or, putting it another way, increasing the amount of milk per man employed.

It follows that saving time does not cut costs unless you hire fewer men or if the time is profitably used. Another thing to keep in mind is that the profit from a costly piece of equipment may be disappointing if your farm is unhandy and out of date, or if somewhere along the line you "carry feed in a basket."

The late Bill Hagan, who was dean of the New York State Vet College, told me of seeing a fine field chopper in Russia. The chopped forage was trucked to the farm and dumped on the ground and the women took it to the cows in bushel baskets. Sounds silly, but it isn't much better to field-chop corn or grass and blow it into a silo and then carry the silage to the cows.

Equipment Costs

There are ways by which equipment costs can be controlled. Mr. E, though running an 80-cow dairy, keeps a close watch for bargains. He showed me a tractor bought at a big saving. It had a few years on it, but Mr. E knew that the former owner had used the tractor very little and had taken good care of it.

Mr. F can well be called an expert on keeping equipment in top condition. It is adjusted, serviced, and repaired by the book, and as a result he gets far more than the average years of service from it.

Mr. G points out that equipment must be geared to size of business. "I own a corn planter," he said, and "so does my neighbor. But I plant at least three times the acreage with mine and as a result my cost per acre is far below his."

Mr. H reminded me that money can be saved when buying. There's the question of the cost of money. It's nice to be able to pay cash, but if credit is needed bank credit is likely to be less costly than dealer credit. Then there's the matter of "dickering." If a dealer is anxious to make a sale, he's likely to give you a better allowance on a trade-in.

These days, management makes the difference between profit and loss, and in management, the purchase, maintenance and use of farm equipment looms big. Obviously, mechanization is here and will grow. The time is past when any man, anywhere, on a farm or in industry, can afford to carry, push or hoist anything by muscle alone. Mechanical power is too cheap. But just how you employ it to your satisfaction and profit — that's the big challenge!

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Terramycin fights as many different kinds of germs as any farm drug today possibly can. That's important in fighting any disease . . . and particularly such a complicated one as shipping fever, where a great many different germ species are usually involved.

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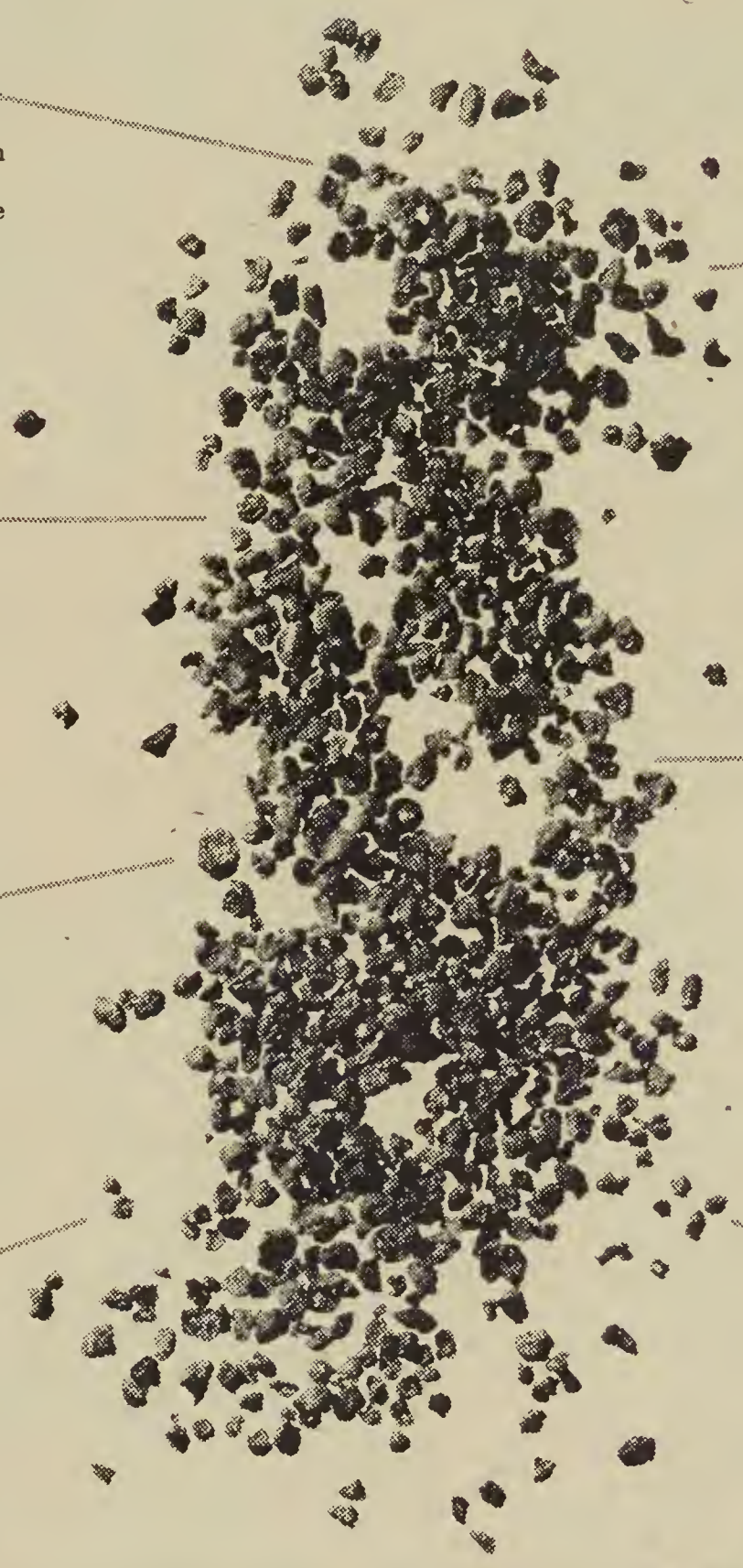
While most drugs give you coverage here, Terramycin gives you *broad-spectrum* coverage . . . the greatest possible protection against these germs in the gut that cause trouble in disease-weakened animals.

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PROVIDES HIGH LEVELS OF VITAMIN A

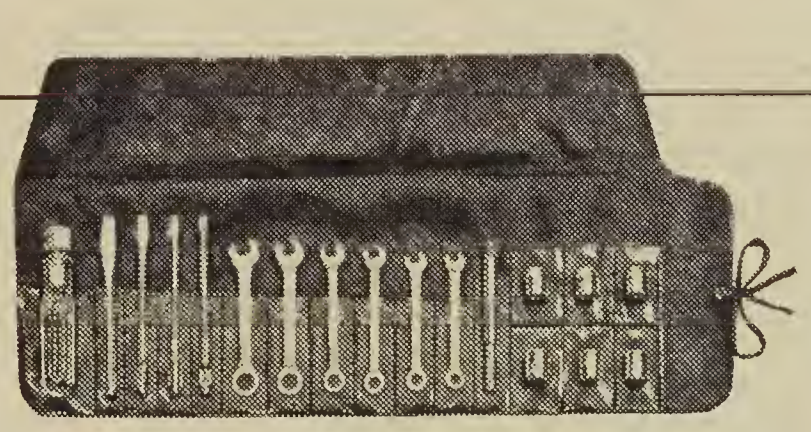
Terramycin Crumbles provides 250,000 units of vitamin A in every pound . . . at no increase in price. That's important, because cattle are very often deficient in vitamin A when they arrive in feedlot . . . one reason their disease resistance may be down.

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Your cattle get 25,000 units of this "sunshine" vitamin in every pound of Terramycin Crumbles . . . again at no increase in price. This is particularly important during barn or feedlot feeding when there is less exposure to sunshine and little sun-cured roughage in the feed.

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The highly palatable alfalfa carrier of Terramycin Crumbles sees to that. Cattle eat enough to get the Terramycin levels they need for disease prevention or quick recovery.



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- 1 Plastic Case

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Specially designed for feeding from the first week to 4-5 months of age. It is coarse and extremely palatable. Twin-Mix speeds growth and saves money by helping to develop the rumen early, allowing the calf to make maximum use of roughage.

MILK MIZER

A milk substitute, in powder form, which is ready to feed when warm water is added. Fortified with minerals, vitamins and antibiotics, Milk Mizer is a proven, safe and economical replacement for milk.

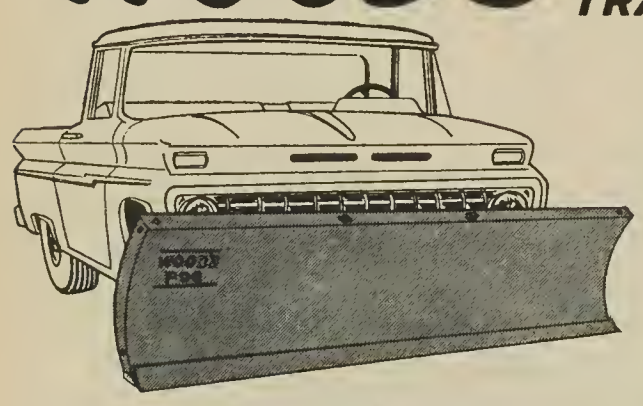
Both Twin-Mix and Milk Mizer help calves grow into better producing cows which return greater net profit during the milking years. Try Twin-Mix and Milk Mizer today.

WIRTHMORE®

"YOUR FEED DOLLAR IS WORTH MORE AT WIRTHMORE"

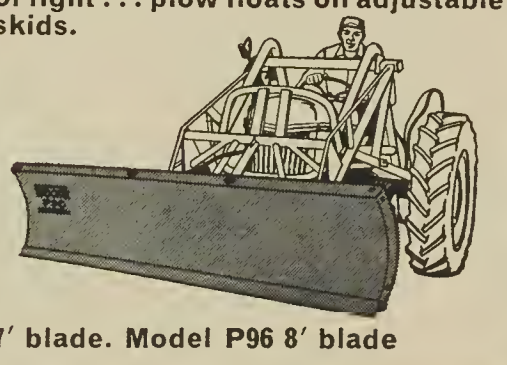
Use The Best Snow Removal Equipment

WOOD'S SNOW PLOWS FOR TRUCKS, JEEPS and TRACTOR END LOADERS



Adjustable angle spring-trip snow plow featuring single-action or double-action (down press.) hydraulic lift for two-wheel and four-wheel drive trucks.

Reversible curved blade, beveled on both edges . . . plow angles left or right . . . plow floats on adjustable skids.



ADAPTABLE TO FARM & INDUSTRIAL END LOADERS. Easy to mount, special brackets attach to frame so plow mounts on standard bucket-end-loader arms, single or dual cylinder equipped.

Model P78 6-1/2′ blade. Model P84 7′ blade. Model P96 8′ blade

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WOOD BROTHERS MFG. CO. Oregon, Ill. • Vicksburg, Miss.

What's New For Farm and Home



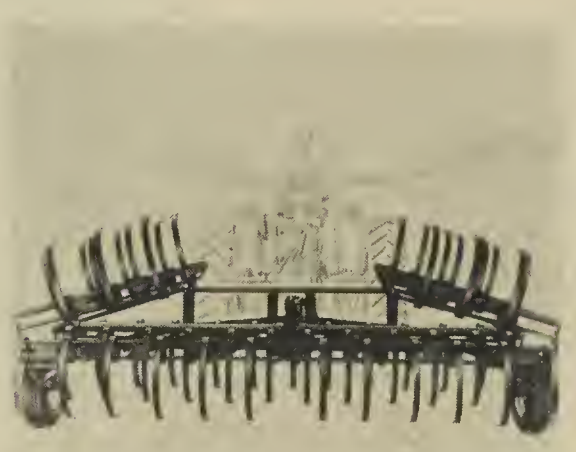
A new portable ultrasonic instrument designed specifically for accurate measurement of fat and lean tissue in live animals has been developed by the Agricultural Instruments Section of Branson Instruments, Inc., Stony Hill, Bethel, Connecticut. Short wave trains of high frequency sound are transmitted into the animal. The instrument can detect minute reflections returned from tissue layers and their separating membranes representing elapsed time or sound velocity through the tissue. This time factor is shown on the instrument as a measurement of tissue thickness in inches and centimeters.

the intake manifold of a motor vehicle, or from an air compressor.

Mounted on a storage tank on a truck, this new Tokheim pump known as PowerVac, permits the refueling of heavy vehicles — farm implements, construction and earth-moving equipment — at the site of operation, making it unnecessary to return them to a central fueling station.



The Raynor Mfg. Co., Dixon, Illinois, has announced a new Raylon overhead door which permits light to enter by means of translucent fiberglass panels that are weathertight, lightweight, and have aluminum frames. The Raylon garage door is offered in standard sizes or can be specially built to fit any opening.



A transportable high-clearance spring-tooth harrow, capable of preparing a 20-foot seedbed per pass, is being manufactured by Brillion Iron Works, Inc., Brillion, Wisconsin. Reported to be the first really new spring-tooth harrow of the century, the unit incorporates hydraulic control of tilling depth and clearance from the tractor seat, and foldable wings for quick, safe transport on roads and through narrow gates.



Two features of the new John Deere 10 Hi-Density Baler team up to make high-density bales. First is a fast plungerhead speed. Under normal load, the roller-type plungerhead runs at approximately 95 strokes per minute. This puts more, but thinner, charges in each bale and also puts more compression on each bale. Second, a bale-tension device puts hydraulic pressure on each bale as it passes through the bale case. Bales on left end of wagon above weigh 55 pounds each, the same as those on right side of wagon.



Tokheim Corporation, Fort Wayne, Indiana, has developed a power-operated gasoline pump which derives its power from either

Emergency tire chains, which can be attached to modern unpierced rims even while the wheel is in a mudhole, have been announced by Lockjaw Corporation, 21658 Cloud Way, Hayward, California. The Lockjaw Emergency Chain is merely placed around the exposed portion of the tire and then clamped to the rim — without the need of a tire jack. Tire sizes up to 7:60 can be fitted, and all wheels except those few models with oversize brake flanges.

A CORRECTION

In the listing of the New York State Exposition winners in our October issue, the owner of the champion Montadale ram was given as Paul J. Freeland, Canisteo, N.Y. The ram was owned by Dr. F. E. Lindblom, Jamestown, N. Y.

Information Guide — The New York State Poultry Industry Coordinated Effort (SPICE) has, through their zoning committee, prepared a guide to rural zoning ordinances with particular reference to poultry. The contents include a discussion of the problem with new rural residents, types of zoning, and suggestions for developing a comprehensive plan.

Agricultural Films — New York State College of Agriculture has on file seven new 13½-minute color and black and white 16 mm. motion pictures descriptive of today's New York State agriculture. They are available upon application to Film Library, New York State College of Agriculture, Cornell University, Ithaca, N. Y.

Every year it takes 60 million bushels of corn just to make the starches used in paper sizing, oil well drilling, explosives, plastics, and other industries.



World's Lightest Direct Drive Chain Saw with Super Power

New HOMELITE SUPER XL-12

Here's more Homelite progress... a new direct drive chain saw that weighs only 12½ pounds less bar and chain. There's not an ounce of fat on it. It's all guts, all power... *super* power. Cuts 15" softwood in 15 seconds, 15" hardwood in 20 seconds. Fells trees up to 4 feet in diameter. Zips through 10" oak in 10 seconds. It's the most powerful, most practical saw yet for all types of farm and professional cutting.

The Super XL-12 introduces a new, more powerful engine. A new muffler that smothers more noise. Added to these are all the professional features that men want and need in a saw. Diaphragm carburetor for all position cutting... up, down, and upside down. Group controls, "hot spark" ignition and automatic clutch that make this brand-new Super XL-12 easier to start, run, control and operate than any other chain saw.

Husky, counterbalanced crankshaft eliminates vibration, reduces operator fatigue. Rugged die-cast construction stands up under rough, day-after-day cutting.

The Super XL-12 is a narrow, compact and perfectly balanced saw. Flush-cut handle lets you cut at ground level. Straight blades from 12" to 24", plus 14" plunge cut bow and clearing bar.

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Addison—Addison Farm Equip. Co.—121 E. Front St.
Akron—Blew Equipment, Inc.—32-43 Mechanic St.
Albany—Terminal Hardware, Inc.—1155 Central Ave.
Albion—Bentley Brothers—RFD #2
Altamont—Alfred L. Schager—Star Route
Amsterdam—Joe Razaar's Machine Shop—RD #2
Amsterdam—V. O. Smith Auto Sales—RFD #4—Rt. 30 N
Angelica—Herbert Wagner—Dalton Road —RD #1
Arkport—Francis Gowiski—RD #1
Armonk—Young & Ogden—Route 22
Auburn—Main & Pinckney—RD #6
Avon—Webb Implement Company
Bainbridge—Carlton Loomis—Brackett Lake Road
Baldwin—Tool Rental Inc.—500 Merrick Road
Ballston Spa—Perrino Implement & Tractor—RD #4
Ballston Spa—Pettit & Son Equipment, Inc.—Route 50—South of Ballston
Bath—Bath Truck & Tractor Company, Inc.
Bedford Hills—H. A. Stein Tractor & Equipment Co. North Bedford Road
Belfast—Grastorf & Guilford—Main Street
Belleville—Maurice L. Herron—Southern Jefferson County—opposite corner of Post Office
Blasdell—Monarch Sales & Dist. Company—4281 South Park Avenue
Blooming Grove—W. H. Rudolph, Inc.
Bolivar—Bolivar Magneto Company—65 Wellsville Street
Bradford—Fleets on Lake Lamoka
Brewerton—Van Epps—Route 1, Shop #9517
Brewster—The Powerhouse—Route #6
Braircliff—Wallace J. Scott, Jr.—Route 100
Brooklyn—Neptune Marine—2023 Neptune Avenue
Callicoon—John H. Eschenberg—Rt. 17-B
Camden—Willard Rood—6 Mexico Street
Canandaigua—Aldrich Farm Equipment—RD #2
Canastota—Alfred A. Patano—409 New Boston St.
Canisteo—Olson Equipment—58-62 Depot Street
Canton—Arthur Gary—R.D. 4
Carmel—Nichols Hardware, Inc.—Main Street
Center Moriches—Savage Hardware—383 Main St.
Chaffee—Howard Ellis—Allen Road—R.F.D.
Champlain—Raymond Bedard
Chatham—Chatham Machine Shop—Rte. 203 Church Street Extension
Churchville—Mr. M. E. Fairbanks
Cincinnatus—Robert Dunham—RFD 2—Route 2
Clarence—Williams Tree Surgeons—Townline Road
Clinton—Clinton Tractor & Implement Company, Inc.—Meadow Street
Coeymans—Blaisdell's Repair Shop—Westerlo St.
Cold Spring—Cold Spring Service Center—Chestnut Street—Route 9D
Conklin—Ray E. Goodell—R. D. 1
Cooperstown—Western Auto Assoc.—167 Main St.
Corinth—Main Motors, Inc.—98 Main Street
Cranberry Lake—Cranberry Lake Inn Marina—P.O. Box 85
Croton-on-Hudson—Zoller's Service—87 N. Riverside Avenue
Dansville—K. G. Richmond—22 Ossian Street
Deer River—Francis Nicholl—Saw Mill Road
Delhi—Delhi Farm Equip. Co.—23 Elm Street
Delmar—Hilchie's Hardware, Inc.—255A Delaware Avenue
Deposit—Edwin Hodam, Jr.—Sands Creek Road
Downsville—Joseph Capaldo—Route 206
Ouanesburg—Berical's Equipment Co.—RD #1
East Palmyra—J. J. O'Meal
East Pembroke—Ron & Newts Sales & Service
Elma—Pilgrim Equip. Co.—3080 Transit Rd.
Elmira—Cory's H'ware Co.—1548 Lower Maple Ave.
Erieville—Magee's Service
Fairport—Knapp & Trau
Falconer—Schutt's Saw & Mower Shop—135 South Work Street
Fishers Island—Home Appliance Center—Box G
Franklinville—Len's Sharp Shop—10 Green Street
Fredonia—Fredonia Farm Supply—McAllister Road
Freeport—Freeport Equip. Sales & Rental, Inc.—170 West Sunrise Hiway
Fulton—Harold Burton—202 Division Street
Garden City—Worth Supply Co.—270 Nassau Blvd. South
Gasport—C. J. Perry & Sons, Inc
Geneva—C. M. Neilson & Son, Inc.—481 Hamilton Street
Germantown—Capitol Valley Cont. Inc.—Blue Stores
Glens Falls—J. E. Sawyer & Co., Inc. 6490 Glen St.
Glen Head—Countryside Enterprises, Inc.—691 Greenvale-Glen Cove Hwy.
Gouverneur—NESCO (Northern Engine & Supply Company)—RD #5
Gowanda—Gowanda-Harley Davidson Sales—Zoar Road—RFD #1
Great Valley—David J. Davies—Sugar Town Road
Greenwich—L. G. Collins—RFD #1
Hillsdale—Hillsdale Farm Supply Inc.
Holland—Lewis Machinery Service—Phillips Rd.
Hudson—Bame's Marine Supply—190 Fairview Ave.
Huntington Station—Island Power Tool Co., Inc.—152 West Jericho Turnpike
Ilion—Burrill Saw & Tool Works—401 E. Main St.
Ithaca—Valley Fixit Shop—363 Elmira Road
Johnsonburg—Walter Pope—RFD
Johnson City—Newman Bros. Hardware—257 Harry L. Drive
Johnson City—Oakdale Equip.—702 Main Street
Johnstown—LeRoy C. Sweeney—RFD #1—Hiway 116
Keene—Gordan C. Wilson—P. O. Box 16
Keeseville—Dan Downs
Kenmore—Kenmore Renting Co.—1297 Kenmore Av.
King Ferry—Roy A. Tuttle, Inc.—P. O. Box 34
LaFargeville—Clarence Comstock—RFD 1—Plessis Omar Road
Lake Pleasant—Wight's Esso Station
Larchmont—Foley H'ware, Inc.—88 Boston Post Rd.
Lee Center—Stokes Chain Saw Service—RT #26
Leeds—Peter Suttmeier—Sandy Plains Road
Liberty—Gerow Brothers
Long Eddy—Malcolm Crawson—P. O. Box 66, Rt. 1
Malone—Elliott & Hutchins, Inc., East Main Street
Margaretville—Fairbairn Lumber Corporation
Marlboro—State Sarles Sons Inc.—Route 9W
Massena—Douglas LaPoint—Rt. #1
Mayfield—Peter Johnson—R.D. #1 Mountain Ave.
Mechanicville—Brenn's Lawnmower & Engine Shop R. D. #2
Mendon—Saxby Implement Corp.
Middleburg—River Imp. Co., Inc.—Middle Fort Rd.
Middletown—H. L. Ayres—P. O. Box 187
Millerton—Brewer's Mower Sales & Service—Sharon Road
Monsey—John W. Knapp—Route 59—P. O. Box 105
Morrisville—Ralph Pashley—P. O. Box 432
Naples—Francis Bills Garage—RD #1
New Lebanon—Joseph H. Mittnight
New Rochelle—Gundelach's Inc.—388 Main St.
New York—New Hippodrome H'ware—70 W. 45th St.
Niagara Falls—A. W. Bergeron's Garden Shop & Nursery—2594 Seneca Avenue
Niagara Falls—Delta Tool Rental—2901 Military Rd.
Nicholville—Bould's Farm Supply
Nineveh—Maurice M. Wightman Sales & Service—R. D. #1—East River Road
North Boston—Klein Equipment Corp.
North Syracuse—Hytron Lumber & Supply, Inc.—Fay & Allen Road
Odessa—Odessa Farm Equip., Inc.—c/o Stanley Darling—RD #1
Odgensburg—Fred Shurleff's Inc.—Washington & Catherine Streets
Oneonta—West End Imp. Co.—Country Club Rd.
Orchard Park—Site Contractors, Inc. 132 Calif. Rd.
Oswego—Cloonan Small Engine Service—RD #2 Hall Road
Palmyra—Jim's Photo & Hobby Shop
Panama—Weise Hardware & Electric Co.—Main St.
Parish—Parish Hardware—7448 Main Street
Pavilion—P-D Service
Peekskill—Peekskill Lawn Mower Center—Crompond Road
Penn Yan—Smith's Farm Store, Inc.—135 E. Elm St.
Pike—Leon Wilcox
Port Jefferson—Vehicle Serv. Corp.—1575 Patchogue Road
Port Leyden—McHale's Chain Saw Company
Port Washington—Manhassett Bay Outboard, Inc.—78 Shore Road
Poughkeepsie—Gifford Power Equipment, Inc. —115 Dutchess Turnpike
Prattsville—Prattsville GLF Service
Rensselaer—Henry Meurs & Son, Inc.—202 B'dway
Riverhead—Tryak Truck & Equip. Co.—Pulaski St.
Rochester—John Feathers—4135 W. Henrietta Road
Sag Harbor—Peerless Marine—Ferry Road
St. James—Molin's Lawn Shop—665 Jericho T'pike
Salem—George A. Jolley—South Main Street
Sanborn—Le Van Hardware Inc.—5856 Buffalo St.
Saranac—Jon T. Ryan
Saranac Lake—Moody's Sales & Serv.—7 Duprey St.
Saugerties—Ken-Rent—RFD 5—Box 13—Mount Marion Rd.
Savannah—Dickens Bros.
Schenectady—Carman Paint & Hardware—207 Campbell Road
Schenectady—King Trac. Co., Inc.—145 Cordell Rd.
Schenectady—David Mahoney Co., Inc.—209 State St.
Schroon Lake—Lakeview Outdoor Center, Inc.—U S Route 9
Scotia—Wayside Acres Home & Garden Center—209-211 Sacandaga Road
Skaneateles—Bobbett Implement & Tractor Co.—Fennell Street—Box 98
Smyrna—John E. Blanchard—Route 80—Main St.
Southampton, L.I.—Wm. A. Frankenbach Garden Center—North Hwy. North Main Street
Sodus—Delyser Bros.
Speculator—Gerald Buyce
Springville—Warner Lumber Mill—R. F. D. #1
Stamford—Eklund Farm Machinery—P.O. Box 216
Staten Island—Forest Equip. Co.—1319 Forest Ave.
Staten Island—Trimalawn Equip.—2081 Victory Blvd.
Staten Island—United Rent-Alls of Staten Island—3874 Richmond Ave.
Stone Ridge—Dedrick Pow. Equip. Co.—Cottekill Rd.
Summitville—L. Finkle & Son, Inc.—Route 209
Sylvan Beach—Koster Building Supplies, Inc.—9th Avenue
Syracuse—Alex. Grants' Sons—935 Erie Blvd. East
Syracuse—Reliable Farm Supply, Inc.—2083-85 Park Street
Syracuse—West Genesee Sales, 2522 Genesee St.
Tarrytown—County Power Tool Company—625 White Plains Road
Thendara—Dan Hudon—Route 28
Troy—E. J. Goyer—R. D. 1
Trumansburg—Millspaugh Brothers—Cayuga St.
Tupper Lake—Herve St. Onge—39 Broad St.
Warrensburg—Carl R. Kenyon—Route 28
Warwick—Walter Equipment Company
Waterloo—Seaway Marina, Inc.—473 Waterloo-Geneva Road
Watertown—White's Lawn Supply—RD #4 (c/o C. Howard White)
Wayland—Gross & Didas—12 Main Street
Wells—Floyd Simons—Box 138 Old Wells-Speculator Road
West Albany—Abele Tractor & Equipment Company —72 Everett Road
West Hampton Beach, L.I.—West Hampton Fuel—112 Montauk Hwy.
West Henrietta—James R. Hanna, Inc.—6800 West Henrietta Road
Westport—Marshall F. Fish—Rt. 22 on Lake Champlain
West Winfield—West Winfield Farm Supply
Whitehall—Norman H. MacLeod Saw Shop—Comstock Road
White Plains—The Lafkin's Golf & Lawn Supply Corp.—1200 Mamaroneck Avenue
White Plains—Pickard Hardware, Inc.—203 E. Post Road
Whitney Point—H. A. Penningroth & Son

NEW JERSEY

Allendale—Allendale Equip. Co.—317 Franklin Twp.
Allenwood—Sigler's—Rt. #34 Spring Lake Circle
Bayonne—Allied Equip. & Supply Corp., Inc.—691 Broadway
Bayville—Dover Sup. Co.—Box 225—Mill Creek Rd.
Bergenfield—Bergen Rental Service, Inc.—150 South Washington Avenue
Blairstown—J. C. Roy & Son
Branchville—The Roy Company
Camden—Antrim Hardware Co.—1514 Federal St.
Cliffside Park—Halton Hdwe.—666 Anderson Ave.
Clinton—Philip G. Berger—Box 5286—Route #22
Cranford—Andy's Handy Service—117 South Ave. W.
Dover—Handymans Tool Shop—Centergrove Rd. & Route #10
Eatontown—Grasslands, Inc.—Box 94
Elizabeth—A-M Tool Rental—69 Cherry Street
Englishtown—Joseph J. Szczepanik—Union Valley Road
Fairview—Edge Grinding Shop—388 Fairview Ave.
Freehold—C. H. Roberson, Inc.—29 Court Street
Garfield—Ralph's Hwg. Serv.—Rt. 46 & Boulevard
Gladstone—G. F. Hill & Company
Hackettstown—M. B. Bowers & Son, Inc.—128 Willow Grove St.
Hammonton—Parkhurst Farm & Garden Supply—301 North White Horse Pike
Hanover—Do It Yourself, Inc.—Route #10
Harrison—H. I. Karu—215 Harrison Avenue
Hazlet—The Service Equipment Co.—3141 Route 35
Hewitt—Sportman's Boats & Motors—W. Shore Rd.
Hightstown—C. H. Roberson, Inc.—Rt. 33—Mercer Street
Lambertville—John Kurtz—R. D. 1
Lawrenceville—Lawrenceville Hardware Company—2667 Main Street
Ledgewood—New Jersey Lawn & Power Mowers Equipment—Route 46
Little Ferry—Ted's Lawn Mowers—15 Riverside Ave.
Madison—Tractor & Lawn Mower Sales & Service —331 Main Street
Maplewood—Gauthier Door Check—2 Burnett Ave.
Medford—Fred Myers, Jr.—RR #2—Box 304
Middletown—Monmouth Mower Shop—656 Route 35
Monroeville—Albert Weber—Route 538—Swedesboro-Franklinville Rd.
New Egypt—J. R. Caines—Route #539
Northfield—Vic Collins—2101 New Road
North Plainfield—United Rent-Alls—714 Route #22
Oakland—Bergen Power Equipment—593 Valley Rd.
Old Bridge—Old Bridge Tractor—RFD—Box 328
Old Bridge—William J. Rainaud—Box 95—Hiway. 9
Paramus—Artie's Hardware & Machine Shop, Inc.—495 Paramus Road
Penns Grove—R. F. Willis Co., Inc.—7 Oak St.
Pine Brook—Shulman Tractor Co., Inc.—Route 46
Pompton Plains—Livingston Sport Center—Route 23
Princeton Junction—Grover's Mill Company
Riverton—Riverton Fm. & Garden Sup. Inc.—Rt. 130
Roseland—Needham's Grinding Service—191 Eagle Rock Avenue
Saddle Brook—Point Service & Supply, Inc., 112A Route 46
Short Hills—Millburn Grinding Shop—658 Morris Turnpike
Somerset—Frank's Building Supply Co.—619 Somerset Street
Somerville—Post Stores, Inc., US Route 22
Summit—Glenjay's Mower & Garden Shop—385 Springfield Ave.
Sussex—Len's Service Station—R.D. 1
Trenton—United Rent Alls—1690 Pennington
Tuckerton—Margraf's Hardware—North Green St.
Union—Rent-A-Tool—2491 Route 22
Vincetown—Wells Mobile Service—Route #206
Vineland—Swanson Hardware Sup.—533 N. E. Ave.
Waterford Works—Rusnak Bros. Inc.—Chew Road
Westfield—Storr Tractor Co.—469 South Ave. E.
Wharton—J. W. Malson, Sr.—Route 15 (RFD 2)
Williamstown—Weed's Lawn & Garden Mart—311 South Black Horse Pike
Woodbury—Arber's Lawnmower & Engine Service—962 North Broad Street

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a CERTIFIED FARM* can't take a chance

There can be no doubts about a product's performance on a "Certified" farm. The health control program is extremely rigid. All milk is produced under the direct supervision of the Medical Profession.

"We can't take a chance" — says Bob Rowlands — "Crown Gold Seal inflations milk fast, clean easy, retain their shape, help prevent mastitis."

Next time, choose Crown. They're specially formulated to resist butterfat.

*Keystone is the only Certified farm in the state of Wisconsin and is one of only 20 in the United States producing milk under the direct supervision of the Medical Profession.



"We choose CROWN inflations"

Bob Rowlands, Keystone Certified Farm, Waukesha, Wis.

CROWN DAIRY SUPPLY CO.
324 W. College Ave.
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Write for FREE 20-page MASTITIS PREVENTION booklet.



The MAN BEHIND This Membership Sign



On barns or milkhouses of some 8,000 dairy farms throughout the Metropolitan New York Milkshed, you're apt to notice these blue and white membership signs.

They mark the place of business of a progressive dairy farmer, one who believes in cooperation, and one who is willing to contribute his personal effort toward projects designed to improve the situation of all dairymen.

If you're not already a member of one of the 80 milk producer cooperatives in the Bargaining Agency, you're welcome to join with your neighbors. Or if you need help in organizing a cooperative, call or write

a Cooperative Association of Milk Producers

METROPOLITAN COOPERATIVE MILK PRODUCERS BARGAINING AGENCY, INC.
472 South Salina Street
Syracuse, New York 13202 Ph: HA 2-0186

(Continued from page 10)

can be shaken out of it. We sometimes harvest a crop of rye straw and then plow the field for a late crop of sweet corn.

Besides sweet corn and rye, we also grow wheat, dry beans (both red and white), hay, oats, corn for grain, lima beans, and table beets. The beets have 500 pounds of salt put on per acre, also a boron solution spray. Boron, of course, has to be kept away from beans, so rotations have to be carefully planned.

We have a new corn planter this year (row spacing 36") that is remarkably accurate in placement of seed. We use various spacing for sweet corn, according to variety. For instance, Multigold stools out and each of the multiple stalks has an ear; if it's planted too close it ends up all nubbins. So we plant this with just over a 12" spacing, whereas Mellowgold will go 10" apart. — Kenneth Simpson, Caledonia, New York.

CUT PRODUCTION COSTS

Several years ago Dad and I realized that the price of milk would never improve much, barring inflation, and that the logical way to improve income on a dairy farm is to produce milk at a lower price per hundred. So we started to do just that.

We had been having quite a bit of udder trouble; also, we wanted a few more cows — so we added a stable to the old barn. With wider and longer stalls udder troubles have almost stopped. Also, there were times — before we had the pipeline — when the machine was left on too long, which tends to encourage udder troubles.

We have a good line of equipment. The latest addition is a bale thrower, which will save some backaches and also give better hay because we can finish haying earlier. We have a crusher and bale our hay, but no drier. We are growing more corn so we can feed corn silage all summer; a year ago we ran short of silage and chopped some oats.

We figured to increase milk production per cow, and our biggest help here was artificial breeding — but better feeding helped, too. Our cows are getting better roughage, more alfalfa for one thing. We feed grain according to recommendations that come back with the summary of our owner-sample test; we are feeding a little more grain than we did a few years ago.

Of course, one way to cut costs is to produce more milk per man. With 2½ men we produced 864,000 pounds a year ago — and hope for 900,000 pounds this year. We are well mechanized to do this, with pipeline and bulk tank, gutter cleaner, a silo unloader, and overhead bulk bins for grain. The result is that we can handle more cows with the same help. Before we built the new stable four years ago, we kept around 60 milkers; now we have stable room for 70.

All this put together has enabled us to cut the cost of producing a hundred pounds of milk, and has left a little wider gap between costs and returns. — Howard Leach, North Rupert, Vermont.

ALL SILAGE

We operate 650 acres and have 83 milk cows. Hay has become a supplemental roughage with us as we've moved in the direction of feeding more corn silage and haylage. Silos are so easy to load and unload that we just naturally seem to move away from bales.

We have a feed bunk 90' long at which cows can feed from both sides — eating hay, silage (corn or haylage), or grain. When feeding haylage, we give cows no hay and use a grain ration between 12 and 13 percent protein. With corn silage, we do feed about five pounds of hay per cow per day along with the 50 to 60 pounds of silage per cow per day.

Grain corn silage runs high on dry matter because it's quite mature when it rattles up the blower pipe. In fact, we finished picking corn and filling silo on the same day (November 27) in 1963. After corn has been frozen and dries up, we put on our chopper a re-cut screen with holes one inch in diameter. This cracks the kernels but doesn't actually grind them. It takes a good tractor to run the chopper, though! We use a re-cut screen with three inch diameter holes for making haylage.

Eighty-five acres of hay crop silage went into our glass-lined steel silos this year before we even turned a wheel on the baler. We have two 20' x 50' airtight silos, plus a conventional 14' x 50' and another 16' x 45'. A 10' self-propelled windrower works just dandy for getting hay ready for the chopper, and it doesn't put any stones in the windrow like a side rake does.

(Continued on opposite page)



Francis and Howard Leach.

Some years, handling haylage is complicated because it gums up equipment. It seems worse when the season is dry, but there was no problem this year with moisture more plentiful. — **Eugene Wy and, Caledonia, New York**

CUTTING COSTS

We are cutting milk production costs in two principal ways. My Dad and I are stepping up the herd from 50 to 60 with the same labor, and we are gradually increasing production per cow.

We feel that the proper milking procedure is extremely important. With two double units we milk fifty cows in an hour-and-a-quarter. We take teat cups off promptly, going so far as to take the cup off a quarter as soon as the quarter is empty; some cows milk out in as little as two minutes. The herd is in the New York Mastitis Control Program.

Of course, feeding is important, too. We cut off grain entirely for two weeks when a cow is dry. Then we feed three to four pounds of grain, gradually increasing to eighteen to twenty pounds per cow per day just before calving.

We have tried "challenge feeding." For the first month we give a cow enough feed to produce eighty pounds of milk; then if she doesn't do it we cut back on her feed. In fact, the entire herd gets less grain as production drops off in the summer.

Thirty pounds of grain per cow per day is about our limit, and any cow that gets over sixteen pounds of grain is fed grain three times a day. We cut hay early. This year we began haying on May 28 and finished on June 18.

For the past three years we have kept the cows in the barn most of the summer. This year they went in the barn on June 15.

Last year our milk production per man was 374,000. We are shooting for a goal of 500,000 pounds per man. — **Dick Keene, Gilbertsville, N. Y.**

KNOW YOUR COWS

I feel that you must know every cow and try to feed her accordingly. By knowing the cow, I mean taking into consideration her size, her appetite, her physical condition, and her ability to milk. I try to feed a reasonable amount of grain without going overboard, because once a cow is over-fed and refuses to eat, you have lost more production than you could make by the extra force feeding.

I usually feed about 60 to 75 percent of DHIC recommendations to cows in the first two or three months of their lactations. Of course, I do not use this as a set rule, but that is about the way it averages.

In the next few months it runs about the same or a little less than the recommendations. In the latter months of the lactation I feed as much and sometimes more than they recommend. I feel this late lactation feeding helps hold up a little extra production and also starts preparing the cow for her next lactation.

I feed my dry cows from 4 to 8 pounds a day during the dry period. I feel that too heavy feeding at this time causes too much udder congestion at calving time, however, I try to bring them to full feed in a very few days after calving.

The largest amount of grain that I have ever fed one cow is 22 pounds a day. In my opinion the amount of grain fed daily depends on the amount and kind of roughage that is available, and on the kind of feed that is fed. Last year I fed a good commercial feed, and in 1963 I used home-grown grains — feeding a few more pounds per day because the home mix does not make as much milk as the good prepared feed.

I do not have any real proof that high grain feeding increases mastitis. Many people will not agree with me, but I believe that if a cow is fed more than she can handle she is much more susceptible to mastitis. I tried one cow on more grain, and in about 4 or 5 days she had mastitis in one quarter. Of course, she could have had it even if I hadn't fed more — so this is not real proof.

I have never had any experience with milking parlors, but I do not think that some cows would get enough feed eaten during so short a time. — **Merton Plaisted, Hammondsport, N. Y.**

DAIRYMAN HAS GARDEN

Many dairymen claim they can't afford to spend time raising a garden. I'm not sure it would pay to hire a man to work a garden, but I have one, take care of it evenings, and enjoy it.

We fit the ground with the tractor. We don't brag about a weedless garden; in fact, it gets pretty weedy as the season wears on. But we do get a lot of vegetables that taste better than any you can buy.

Last fall I left carrots in the ground, and in the spring they were much tastier than when we stored them.

I have never kept track of the time I spend or the value of what I grow, but I plan to continue to work a good-sized garden. — **Nicholas Peri, Geneseo, N. Y.**

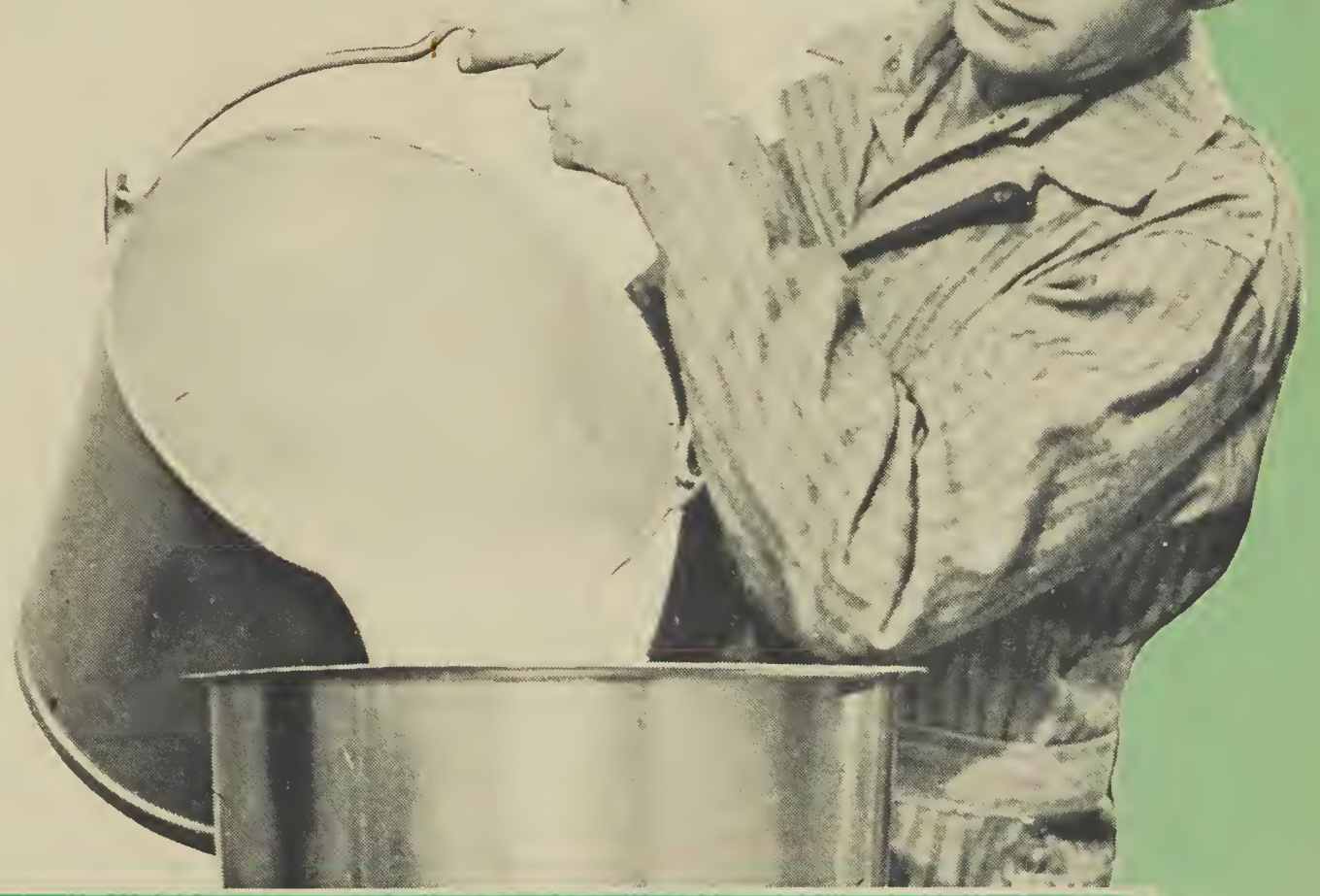
Any person wrapped up in himself makes a pretty unpleasant package.
— Gilcrafter

More emphasis is being put on milk production **per man.** This is good, for college studies of commercial dairy farm business records show that a 51% higher milk output per man can bring a **91% increase in labor income for the operator.** Consistently, dairy farms with high milk output per man enjoy higher rates of labor income.

What should be your goal for milk output? Not long ago 200,000 pounds per man per year was considered good. That figure is now obsolete, and 300,000 pounds is more commonly used.

We believe even the 300,000-pound figure is too conservative. Rising land values, equipment costs and wage rates all point to the necessity of higher returns for the dairyman. Many Beacon feeders are already well above the 300,000-pound goal. **Some are producing over 600,000 pounds of milk per man per year.**

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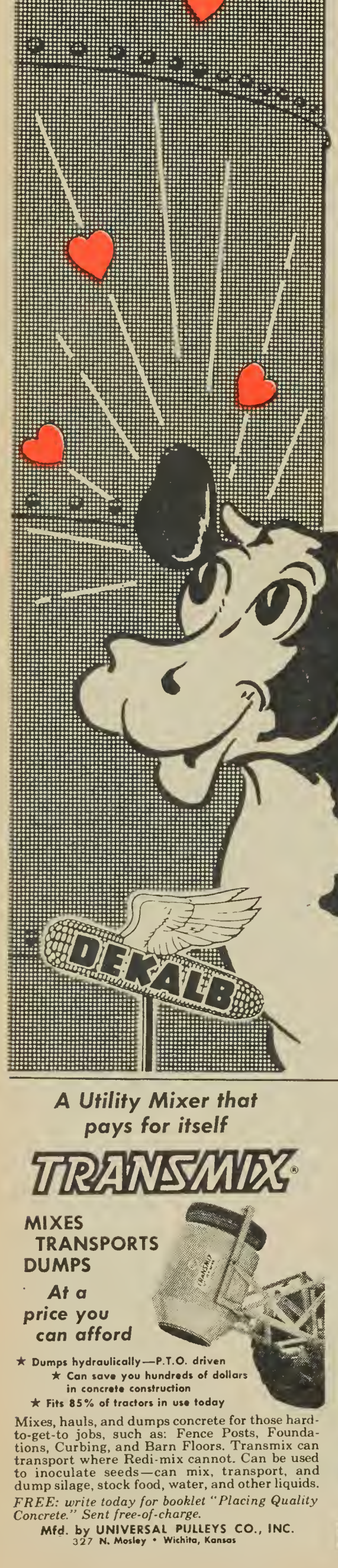
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WHAT'S NEW IN SEED?

quite a few things you should know about

ASK YOUR AGWAY SEEDSMAN



GROWING CHRISTMAS TREES



Which variety of trees sold best last year in New York State? According to the New York State Department of Agriculture and Markets, Scotch Pine was the leader in most areas. The wholesale price for Scotch Pine ranged from a low of $1.00 to a high of $1.90; the average price on the stump was $1.16 and cut price was $1.53. Best prices were reported for the Douglas Fir, which brought $5.00 to $8.00 for a 7-foot to 10-foot tree. The State sold 137 Douglas Fir for an average price of $7.00 each on the stump.

White Spruce brought $1.69 cut, $1.42 on the stump; Balsam $3.65 and $1.75, White Pine $1.70 and $1.20; Red Pine $1.60 and $1.00; Austrian Pine $1.30 and $1.05. Norway Spruce $1.43 and $1.13. These prices are a statewide average wholesale price for 150,203 tree sales reported; this is approximately 10 percent of the total sales for the State.

Our experience last year on a small plantation was that individuals were willing to pay $2.50 for a good tree — pruned and shaped — on the stump. We found that the demand was very heavy for Austrian and Scotch Pine; we felt our White Spruce was exceptionally nice, but the buyers took pine in a ratio of 20 to 1 over the spruce.

Wholesalers were seeking good Scotch Pine — top quality trees, non-yellowing, pruned and sheared. There was a definite shortage of these trees in 1963. Buyers did not want the trees to be trimmed too bushy; it made a hard job of hanging ornaments, and lights were hard to mount.

Check Your Land

Look over your farm for land you are not using. Then have your local Soil Conservation Service representative check it over to see what variety of tree will grow best in your type soil. Quite frequently he can even make arrangements for planting the trees; in our county (Oneida) the ACP payment is $15.00 per thousand for planting trees, plus 85 cents per rod of fencing needed to keep out livestock.

One cannot be too careful of his seed source. We originally purchased our seedlings from the State nursery at Lowville. We found their White Spruce to be fine trees, but the Scotch Pine had a tendency to grow crooked and to turn yellow. This meant that we could not sell them, or even use them for fence posts. We now purchase all of our seedlings from private nurseries that offer non-yellowing stock.

The Austrian Pine has made excellent stock for us. Both wholesale and retail buyers like it; there is little yellowing, the trees have a pleasing conformation, and few buyers can tell it from Scotch Pine. We have sold almost 100 percent of the Austrian Pines we planted.

If you are located close to a city, you can do well by planting nursery stock and selling them with the roots on or balled in burlap. There is a good demand for this type shrubbery due to the large number of new houses being built.

One Christmas tree grower I know was selling balled-in-burlap trees for $12.50 at his plantation; they were then trucked to Long Island where they brought $37.50 each. Of course, these were choice 6-foot specimens.

My advice is (1) pick the spot; (2) decide which variety you are going to plant; (3) plant seedlings from a good source; (4) prune them if necessary; (5) develop your market; and (6) reinvest your profits.

Developing Markets

How do you develop a market? We generally run a few one-dollar ads in the local "Pennysaver;" this brings a group of customers who tell their friends, then we get more buyers; over the years you develop repeat customers. Most city people are intrigued by the idea of cutting their own trees; and we enjoy watching them go through the fields — throwing snowballs, getting some good country air, and trying to decide which is the best tree out of a possible 1,000 choices.

Wholesale buyers seem to know where the plantations are, and they sometimes ask the Department of Agriculture; New York State also has a market service available for those who need it. We prefer to sell retail and pocket the difference between the retail and wholesale price.

Nobody can measure the value of growing trees with a dollar sign. The trees attract birds and wildlife; they also have eye appeal, and make the landscape more scenic. It is a pleasure just to walk between the rows and to smell the pine scent.

You don't need an especially green thumb to grow evergreens, either. Keep their roots moist and protected from the sun and the air; be sure to firmly stamp the dirt around the roots, pray for rain, and your trees should grow.

When you are cutting the pines six years later, or the Douglas Fir fifteen years later, think of the small seedling that has developed into such a fine tree. Then begin to plan your planting for the next year! — W. H. Rawlings, Rome, N. Y.

American Agriculturist, November, 1964

It's New

Keeps Fruit Firm — Professor L.J. Edgerton, pomologist at the New York State College of Agriculture, reports good results with a new growth-retarding compound known as B995 (N-dimethyl amino succinamic acid). Experiments have shown that the compound is also successful in keeping fruit firmer when sprayed before harvest, and in promoting flower bud formation when applied in spring. It is hoped that the use of retardents by fruit growers will reduce pruning costs, enable growers to plant more trees per acre, and cut the costs of spraying and harvesting.

"Zipper" Drains — Three years ago engineers from USDA's Agricultural Research Service installed "zipper-lined" drains at the Ohio Agricultural Experiment Station and other places. The material was put down by a machine that makes a mole-like tunnel 30 inches deep, and lays a plastic liner with interlocking tabs which "zip" together to keep the tunnel open. Drain outflow has been essentially the same as from standard 4-inch drain tile installed in the same soil type.

Hope for Elms — The American Chemical Society reports that a compound has been developed which has actually stopped progress of the infection that causes Dutch elm disease. It will take several years of testing of the new agent (known chemically as a nitroalkyl-benzylthioalkylamine) to establish its effectiveness, but at least there is a ray of hope for our elms.

New Carrot — The first hybrid carrot in the United States has been developed at the University of Wisconsin. Named Hybrid Gold, it is vigorous and uniform, with large, well-colored roots. It is uniform for shape, size, color and smoothness. Full release will come in January, 1966, after testing further under western United States conditions (where seed will be produced).

New Milk Product — A new sterilized concentrated milk that tastes like fresh milk has been developed at the University of Wisconsin. The milk is concentrated to one-third of its original volume by removing water; when the water is added again, the product can hardly be detected in taste and flavor from whole milk. It can also be used, without reconstituting, in cooking or in coffee, and can be held in sealed cans at room temperature for six months or longer — but refrigeration does aid in flavor retention if the milk is held for long periods.

Miracle Fruit — There are small, football-shaped red berries, about three-quarters of an inch long, growing from Ghana to the Congo on large shrubs six to fifteen feet high. The berries, called "miracle fruit," have large seeds with small amounts of pulp, which contains a material that makes sour materials taste delightfully sweet. They are used by the natives to make their sour native beer and bread more palatable.

Dr. Inglett, of the International Minerals and Chemical Corporation, Skokie, Illinois, says that "the natural flavor of citrus fruits eaten after miracle fruit is vastly superior to any sugar-sweetened citrus product." It is believed by the researchers that "substances that could produce such sweetness without adding caloric value to foods have tremendous significance to the calorie-conscious public."

Edible Soybeans — Research work on soybeans at the University of Delaware has developed varieties which are expected to prove excellent vegetable beans for our dinner tables. Seed has been selected from two crosses which are not only edible but resistant to the many blights and mildews that infect the crop. They are also resistant to a condition known as "purple stain," which colors beans and makes them unsuitable as food.

New Insecticide — During September, 1964, the cabbage, broccoli and cauliflower crops in the Northeast were threatened by insects, particularly the cabbage looper and the imported cabbage worm. A new insecticide, known as Thuricide (R) 90T, was used to cope with the onslaught. Thuricide kills insect larvae within three days, without harming animals, birds, fish, bees, etc. Its harmlessness so far as humans is concerned is recognized by the USDA with an exemption from the requirement of a tolerance for residues on a variety of food and forage crops.

Nitrite Poisoning — M. L. Sunde, University of Wisconsin poultry scientist, has found that nitrite poisoning in turkeys can be prevented by feeding 9,100 units of vitamin A per pound of feed. This would cost poultrymen less than 50 cents per ton of feed.

High nitrogen in crops that go into poultry feeds has brought this problem to the poultry industry, particularly to turkeys. Niacin also showed some promise as a preventive, but vitamin A proved most effective.



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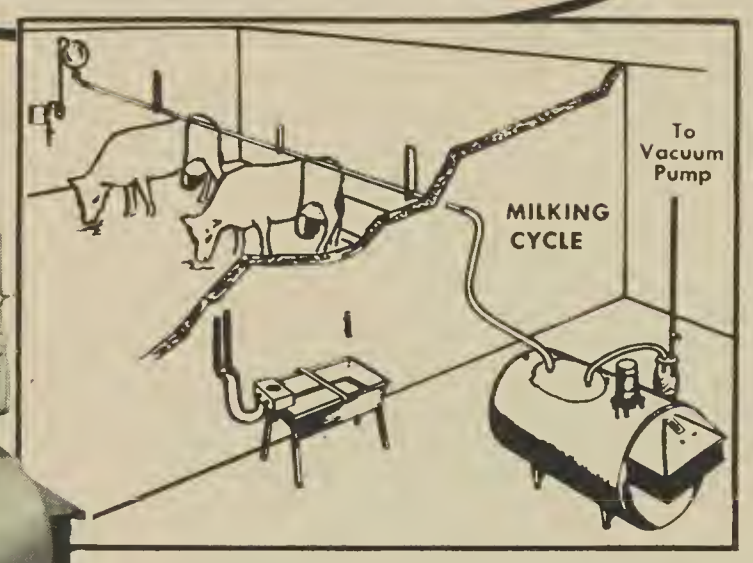
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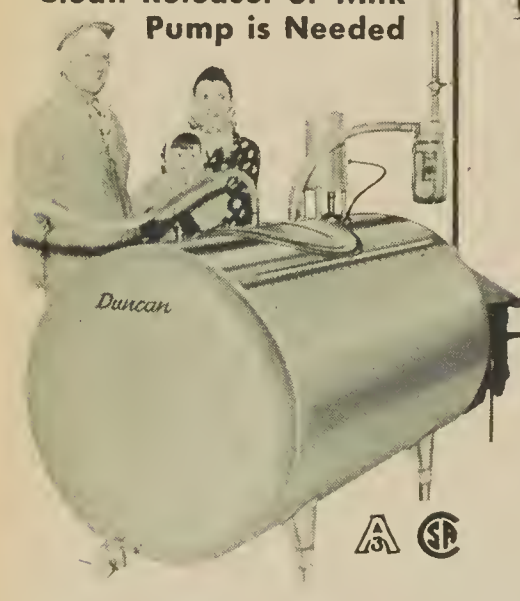
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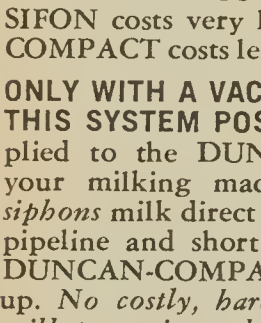
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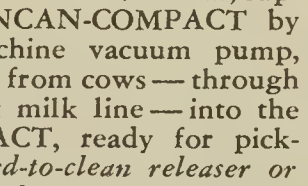
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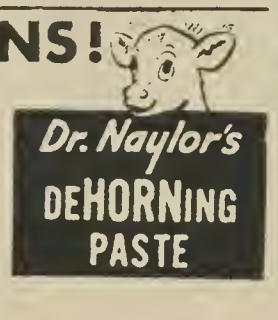
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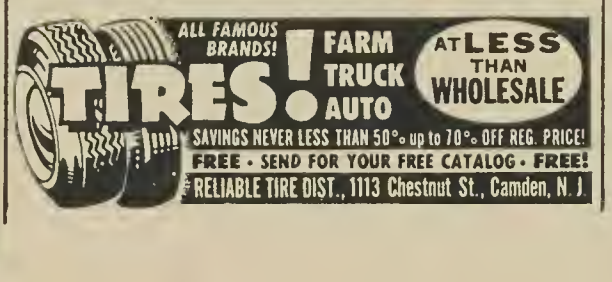
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I Goofed

(Continued from page 8)

by the dense population of hens. Result: more than 500 known dead and several thousand hurt. The flock never again produced like it should.

Controlled ventilation is very good, but it has to be working; it isn't fool proof. Plans for emergency conditions have to be made.

Not all the damage from inadequate ventilation occurs in high-density, windowless houses. Less spectacular losses commonly occur in conventional, window ventilated houses when they are closed up too much for too long.

Hot Air — I guess it was five years ago that I was called by Poultryman Y. He had housed about 2,000 pullets two weeks previously. It was cold outside; the hen house was in a windy spot. His losses for the previous days began mounting something like this day by day ... 10, 35, 60, 110. The symptoms were sneezing and coughing ... CRD, he thought.

I got there at noon on the day after he lost 110; he had already picked up another 75 or 80 that morning. When I stepped in the pen the blast of warm air was so loaded with ammonia fumes that my eyes immediately began to water. After we left the door open for a while (no windows were open), and I got so I could stand the ammonia I saw a huddled flock and many birds had their eyes closed. Closer examination of some of the "blind" birds revealed ulcers from ammonia burn on the eyeballs, even to an amateur pathologist like me.

I asked Mr. Y why he kept the windows closed. He told me he was afraid the birds would pile up if he let in a lot of cold air. Again, to shorten the story, I finally convinced him he should open quite a few windows. Believe it or not... 25 more birds died that afternoon, 18 the next day and after that the mortality was scattered and normal. The sneezing stopped in a few days.

My examples of poor ventilation are all on the extreme side. However, milder problems, evidenced by ammonia odors, wet litter, dirty eggs, unsatisfactory production or unnecessarily higher feed conversions are still common.

Feed and Water

The most common "income robbers" in the category of feed problems are the following:

Shallow feed troughs filled too full.

Old, caked feed (sometimes moldy) in the bottom of the troughs.

Birds out of feed, which starts them eating litter and picking each other.

Not enough oyster shell or calcium-grit hoppers. Or there may be a couple of inches of litter covering the calcium supplement.

Sour mash and slime in the bottom of water troughs, causing enteritis.

Too much bright light over some of the troughs resulting in the birds avoiding them.

A few years back I used to tell poultrymen that I could reduce the feed conversion on half the farms I visit, by a half pound per dozen eggs, if I could redesign their feeders, fill them half as full more often and kill off rats. This would be an exaggeration today but these "income robbers" are still far from eliminated.

Financing

Some poultrymen have too big a debt per bird and others have too little. In talking this over with poultrymen I put it in terms of "debt load." Here's what I mean.

Debt load is the total payment a poultryman has to pay on the principal and interest each year. It has to come out of the egg check. This includes the mortgage or fixed asset debts, an old feed bill, and debts for a lot of miscellaneous supplies which have already been used up. It does not include what he owes for chicks or pullets which are now or would soon become his laying flock. This is properly called his flock replacement cost and is part of current expenses.

Figure what your debt load is for a year. Then divide this figure by the number of dozen eggs you expect to sell this year. If the result comes out to more than 3 cents a dozen, you're carrying a heavy debt load for these days of low margins in the business of producing eggs.

If you're thinking of buying a piece of equipment, which the salesman tells you will cut your labor in half, or give you better production or fewer dirty and cracked eggs, look into it carefully. Quite a few poultrymen have been oversold on equipment and gadgets. Automation is good, but it can be overdone. Most pit-cleaners didn't pay their way, for instance.

Management

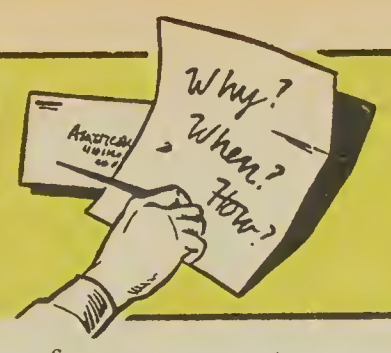
Neither chicks, pullets, hens, broilers nor turkeys thrive on neglect. The old admonition that "the eye of the master fatteneth the ox" applies in a very practical way with chickens.

You can't afford to be wasteful of labor but you can carry this to the point of diminishing returns.

I visited a huge layer operation in a Southern state last winter. Seven men were trying to take care of 120,000 layers. When egg prices got down below 30 cents a dozen, the owner was having trouble meeting expenses. The deficit was considerable. I may be wrong, but I think I know what the main trouble was.

The seven men just couldn't do much more than keep feed and water in front of the hens and gather the eggs. The birds were in cages. Manure began to pile up; ventilation wasn't what it should be; they didn't have time really to check for lice and mites, cannibalism, nor disease outbreaks. Production was only fair and mortality was too high. Some dead hens were not removed from cages for several days. A difference of 5 percent in production amounts to 6,000 eggs a day in this size flock. Even at 2 cents an egg, this means $120 a day. This would have paid for several more men and left quite a bit to apply on other current

The QUESTION ? BOX



Can the cones from blue spruce and other evergreen trees be used to start new trees? Also, can the seed pods from catalpa trees be used to start new trees?

These cones as they come from the tree in September may be gathered and the seeds extracted to produce more seedlings. This, in brief, is a method:

Collect cones, place in warm, sunny area on 1/2-inch mesh hardware cloth or wire. Spread tarp or sack below to catch seeds as they fall out. When open and dry, stir cones to extract seeds. Plant seed in late September or October in prepared bed covering seed with about 1/4 inch of sand, or sand and soil mix. Cover with straw lightly, and in turn protect with 1/2-inch wire to keep out rodents and birds. Seed will germinate in April and May after most of straw is removed.

Catalpa seed should be handled the same way, extracting the seeds from the pod and planting in a similar manner. — **Professor Fred E. Winch, Jr., Cornell University.**

Does New York State allow indemnity payments for hives of bees destroyed by bears?

The State is most willing to cooperate, but it tries to avoid paying for damages caused by bear, deer and other wild animals. The State is divided into nine districts and there is a Fish and Game supervisor in each district. These men are quite willing to help prevent bear damage, and have the authority to grant a permit to shoot a bear that is causing damage to bee hives.

Many beekeepers avoid bear trouble by establishing their apiaries near a farm home that has a good watch dog. Failing this they will erect an electric fence around their apiary. If the fence is well built and properly wired it will usually stop further bear damage to their bees. — **Prof. E. J. Dyce, Cornell University.**

How can I remove iron and sulphur from my water supply?

Probably the most dependable method of removing iron and sulphur from domestic water supplies is chlorination — filtration — de-chlorination.

Chlorine is fed into the supply at the well or at the pump in sufficient quantities to retain a chlorine residual of 3 to 5 parts per million. The chlorine oxidizes the iron and is collected in a filter. The excess chlorine is then removed from the drinking and cooking supply by a dechlorinator which is essentially an activated carbon filter.

Equipment can be purchased from many reputable companies. Most of them will analyze the water and then, on the basis of water usage and concentration of chemical impurities, they will recommend the proper size and type of equipment. — **Carl S. Winkelblech, Cornell University.**

Can you tell me why potatoes turn black after cooking?

After-cooking darkening in potatoes has appeared in most potato growing areas for many years. It doesn't occur every year in any one place, but it will appear sooner or later in most areas. Some varieties are less susceptible than others, for instance, Chippewa less than Katahdin or Green Mountain. Attempts to prevent this defect by methods of growing potatoes have been unsatisfactory down through the years.

The best method and one easy to accomplish is to add a small amount of a food grade chemical to the boiling water. A small amount of sodium acid pyrophosphate, about 1-1½ teaspoons per pint of water in which the potatoes are to be boiled will prevent this discoloration and not affect the nutritive value or the taste of the potatoes. This chemical is inexpensive and is obtainable at many chemical companies and perhaps at your local drugstore. — **Ora Smith, Vegetable Crops Dept., Cornell University.**

I Goofed

(Continued from page 22)

expenses.

The "goof" here was that the loss of income from neglect greatly outweighed the savings on wages. More and more planning has to go into the best use of time and labor so as to wind up with a low labor cost per dozen eggs produced.

I want to take nothing away from those who have organized their poultry farm businesses and run them soundly and well. I personally visit quite a few such farms every year and I respect their owners and their accomplishments.

This has been an attempt to call particular attention to those things which I have seen on many farms, which must be recognized and controlled before such successes are possible.



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Gayway Farm Notes

by HAROLD HAWLEY

FARMER FOLLY

Periodically, it seems we must re-learn the lessons others have already learned — lessons which we might easily learn without going through all the costly, painful process again. Specifically, I refer to the recent attempt in the Midwest to "beef up" the price of livestock by keeping it at home.

No one will argue that a reduction in receipts at the markets will raise prices. What seems harder for some to understand is that over a period all the withheld stock will still come to market (heavier and fatter so it may be discounted), and will have its influence on the market just as much as it would have had without any delay in time of shipping.

Time after time, there have been these attempts to get livestock prices up by withholding shipments from the market. Of course, never have the organizers been able to sign up all the feeders with stock ready for market; always these men have cashed in on market strength brought about by whatever decline there has been in market receipts. It's important to note, however, that even if all the supply was controlled, that is, if all farmers joined this withholding attempt, a higher price could be obtained than would otherwise prevail only if receipts continue less week after week after week. This could happen only if some livestock was destroyed; otherwise, more pounds of meat would be marketed. Each steer or hog which finally did arrive at the stockyards would be heavier.

It seems perfectly clear that withholding actions are doomed to failure unless one of two things happens: (1) A portion of the livestock is permanently diverted from all markets, that is, destroyed; (2) A price is negotiated with meat packers which is uneconomic — above the competitive level.

This can't happen. Popular opinion to the contrary, the profit margin at the wholesale level is very small, and to pass all the profit back to producers would only add a fraction of a cent a pound to live animal prices.

Let's see what this means to dairymen. Milk being perishable, any which is withheld is lost . . . as is the market for it. At least, any milk for fluid use not consumed yesterday will not be used; people simply don't go back to catch up on any food they didn't eat yesterday or last week. Any way we look at it, this whole movement would seem to have no place in the New York milkshed. Better we get behind the industry promotion effort, support and strengthen our co-ops, and reduce our costs at home. Better we practice and encourage the most efficient production and marketing procedures possible.

OUR OWN POLL

It's common knowledge that most men take it as pleasant duty to stand on the corner watching the girls go by. I'm with them. Actually, just to watch folks of all kinds go by a busy corner in a large city is a very engrossing experience.

While whiling away a half hour in Chicago recently, I got interested in what folks were reading. Here is what your private "Gallup poller" discovered. The newsboy had many paperback books and magazines displayed, and I assume he was reflecting the demands of his market as nearly as he could measure that demand.

At any rate, of some eighty periodicals, etc., over a third were concerned with sex, girls, love . . . Surprisingly enough, over one-fifth of the display had to do with physical culture — the body beautiful or muscles unlimited. Old standbys like Saturday Evening Post, Reader's Digest, Newsweek, Life, made up about another fifth. The balance seemed to be mostly recreation-type such as hunting, fishing, boating, golf, etc. This big interest in physical culture certainly was a surprise; not that some of those pallid, pot-bellied individuals couldn't stand a little toning up. Maybe some of us who work with our hands should reflect on the blessings of built-in physical culture through our work.

I wonder if you've looked at the news stands in your town lately? It might be an indication of what our youngsters are reading.

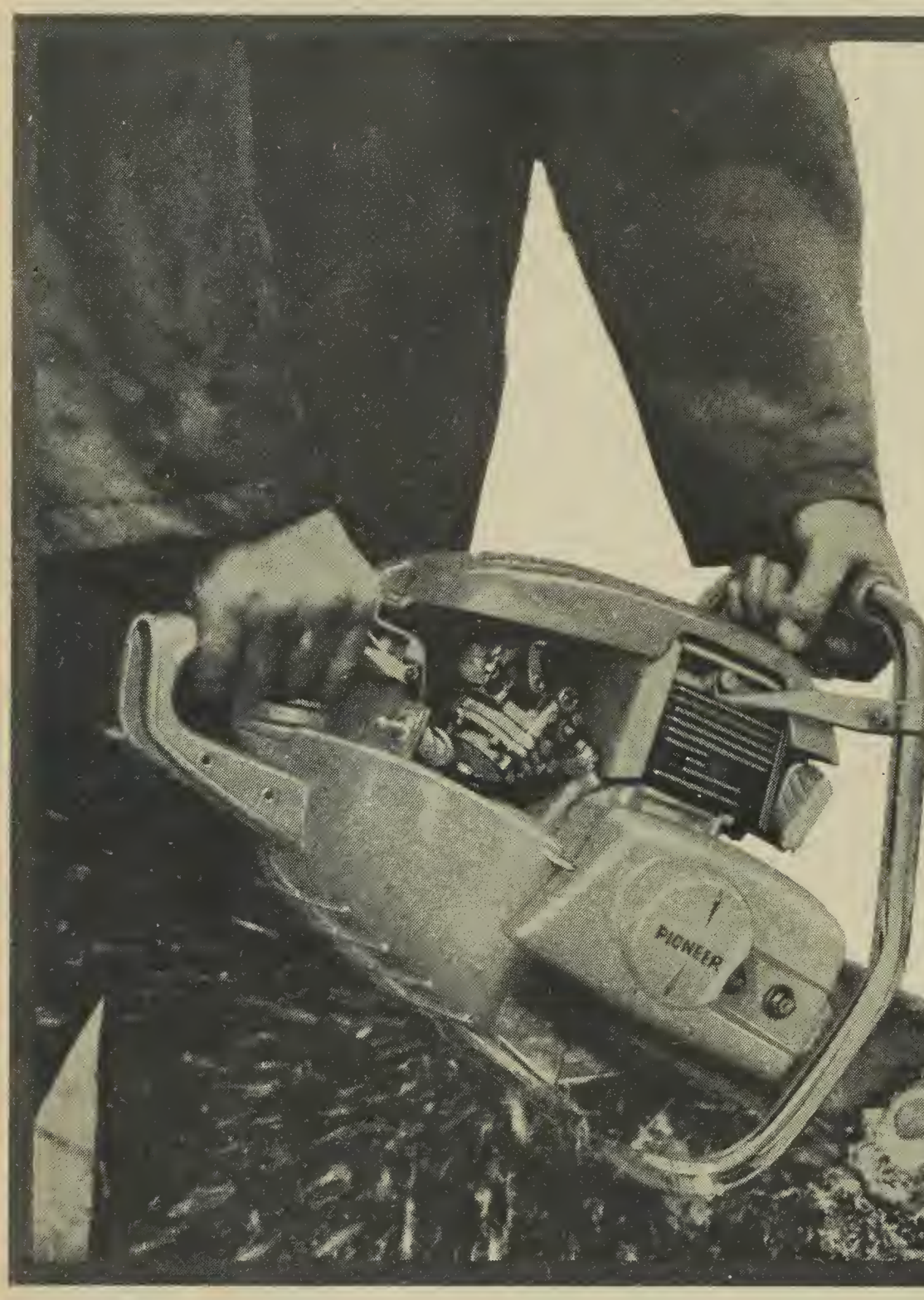
ATRAZINE AND RYE GRASS

The dry weather has made the rye grass in our corn something less than lush. However, it is worth noting that there is a good stand even though Atrazine was used. For many of us this is good news, as winter cover and winter grazing are important and, of course, so is Atrazine for weed control.

FALL COLORS

On rare occasions I have been euchered into attending a showing of paintings. Some I like, those which look like something I can understand and enjoy. Those abstract ones tell me nothing and inspire me not at all.

Some of the most beautiful ones are, of course, the landscapes of the Northeast in the fall. Actually, I used to be pretty critical of some

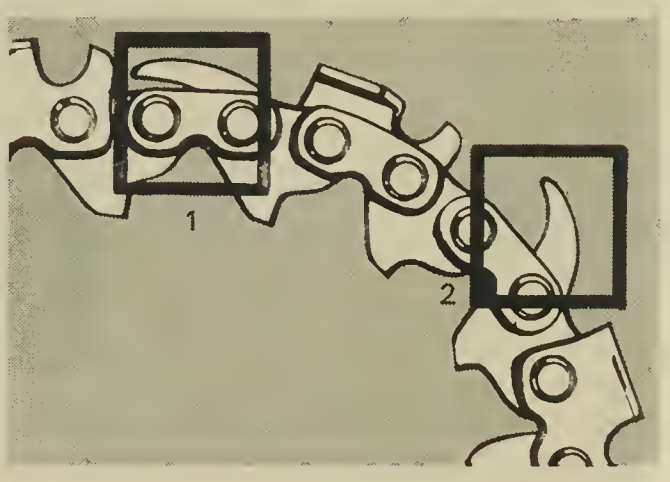


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of them — the colors seemed just too bright and unreal. Within the last year Doris has been doing a little painting as a hobby. Naturally, I have become interested in her efforts, and as a result have become more color-conscious. I recommend this; it greatly increases one's enjoyment.

As the leaves take on their fall colors, it is now apparent that not only the paintings of them but the trees themselves are unbelievable. The colors in real life are just out of this world.

As a way of preserving this inspiring beauty for year 'round enjoyment, we are trying to get a few colored pictures of scenes which are particularly pleasing. Some blustery days next winter Doris will likely drag out one of these and reproduce it on canvas. I haven't tried it yet, but may. There is something about producing an enjoyable painting where nothing existed before which must be a little akin to writing a beautiful melody or a poem. This ability to be creative is probably reserved for a limited few, but we can all learn to enjoy these good things in life. Sometimes I feel this is the real tragedy of television. We are so willing to be entertained that we fail to develop our own best abilities and talents whatever they are.

HEDGEROWS IN AUGUST

We usually try to get out some hedgerows every winter. Frequently, this involves working at it when the ground is frozen. At such times our rather small bulldozer finds even moderate-size trees pretty rough for it. We frequently give up bulldozing and go at it with a chain saw — promising to come back and finish it up right in the spring. All too often it comes time to plow and we can't find the time in the spring; this year was no exception.

It therefore happened that we tackled a stretch of hedge after oat harvest before we plowed the field for wheat. Maybe it was because it was dry — at any rate we were rooting out big trees in great style. We accomplished as much in one day as we frequently have done in several days in the winter. What a satisfaction to join two fields together and plow through an old fence line! What a fine thing not to lose all the crop that a fence row takes. What an improvement in the looks of a farm . . . and what a difference in efficiency in using today's larger equipment.

COMING FEATURE!

A new concept of housing dairy cows is nearly completed at Harold and Doris Hawley's Gayway Farm near Weedsport, New York. This experimental free-stall barn includes such things as steel slat floors, liquid manure handling, and a silage auger that runs on overhead tracks from one feeding bunk to another. The December issue of American Agriculturist will explore in depth the details of this barn, the only one of its type in existence anywhere.



James and Mary McVoy of LaFayette, New York, hold a heifer from the McVoy farm destined to help found a new generation in a far-off land. She is one of ten animals that went to the Dominican Republic last summer under the sponsorship of Heifer Project, Inc. If you're interested in helping people overseas help themselves by providing them with top-quality livestock bloodlines, contact Roger Cross at Fayetteville, New York, or Heifer Project President Howard R. Turner of R.F.D. #4, Auburn, New York.

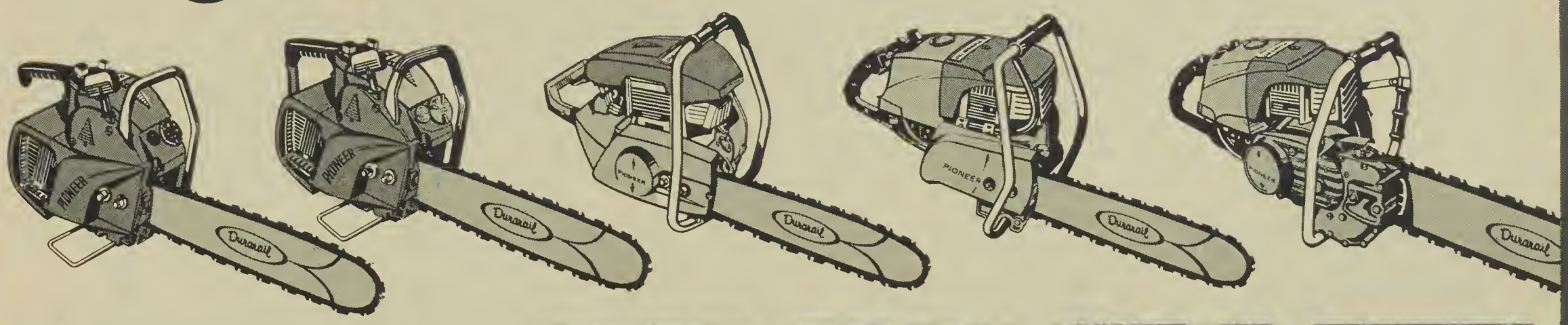
LONG AND NARROW

Long, narrow farrowing pens (planned and tested at the University of Wisconsin) have become very popular with hog raisers, particularly in that State.

The pens are 12 feet long and 4½ feet wide; individual pens have a 2-foot creep, a broader area at one end, and a sow feeder and waterer at the other. The length of the pen keeps the manure and the nest areas separate; the size and shape keep the sow clean and the baby pigs from being lain on.

Hog men find the pens easier to clean, they require less bedding, although some farmers feel that a stall 14 feet long would be even better.

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Left to right: Compact, all-purpose Pioneer 450 for farm, suburb and sports. The Pioneer 550 is a semi-professional chain saw specially designed for farm and pulpwood use. Rated the best professional saw for pulpwood and general logging in its price and size class is the Pioneer 650. Pioneer's most powerful direct drive chain saw is the 750. And where real lugging power is a must, here's the Pioneer 850 in standard 2 to 1 gear ratio or 3 to 1 gear ratio! Pick your Pioneer!



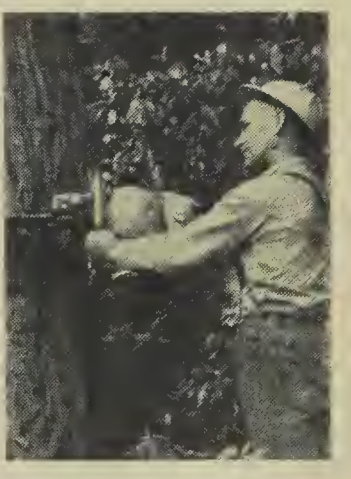
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"My rugged Pioneer Model 850 has the power to tackle any timber in the woods. Starts easy, too."

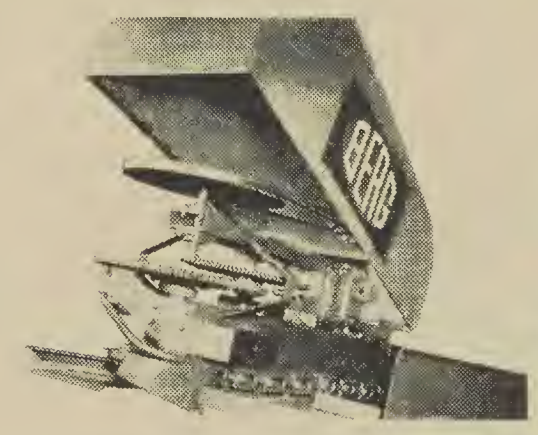
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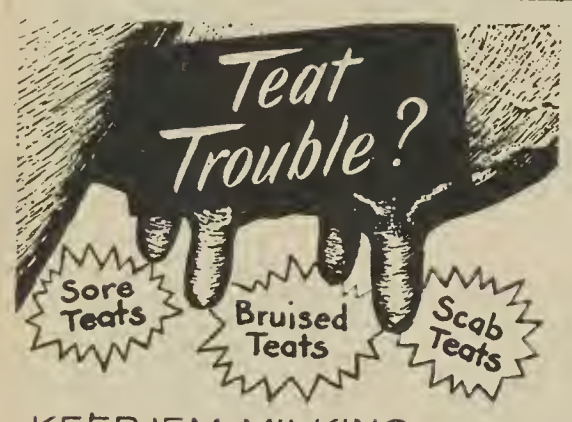


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Your home at sea will be the Queen of Bermuda which sails from New York on February 20. But maybe you will be in or near Florida and will find it more convenient to join the tour at Port Everglades on February 23. If you leave from Port Everglades, you will return on March 6 — those joining at New York, on March 9. Your first taste of rapture will be the service and cuisine that the Queen of Bermuda offers: smooth sailing, good food, sleeping comfort and entertainment on board.

The cost is not much for all the pleasure and excitement the cruise offers. And of course it's an "all expense" tour which means that when you buy your ticket it takes care of landing and embarkation facilities at ports of call, all taxes including port taxes, entertainment on board, deck chairs, cushions and rugs, the scheduled sightseeing on land with expert guides and all tips except to the drivers of the cars we use on land. The latter amounts to less than $3.00. Your only other responsibility is personal laundry and souvenirs you wish to take home.

Ports of Call

You will visit **BARBADOS** where the "flying fishes play." The soothing waves that caress your frame as you relax after a swim, will make you wish you could remain here forever. "Sam Lord's Castle," an old estate house, overlooks miles and miles of canefields. In the city are George Washington House, St. Michael's Cathedral, Museum in Garrison and policemen dressed in bell bottom trousers, white pullover shirts and flat straw boaters with black bands. This island is called "Little England" because the scenery, character and habits of the people are very much like the mother country.

TRINIDAD is the island of steel bands, carnivals, and calypsos and is the rendezvous of races. Here there are Chinese, Japanese, Lebanese, Bengalese, Syrians, English, French, Dutch, Americans, Spanish and Portuguese. Common languages are English, French and Spanish.

The beaches, hills, valleys and lagoons offer rich and varied scenery. "Trinity Hills" is clothed with wild orchids, bougainvillea, flame vine, hibiscus and other tropical blooms with their gaudy colors riotous in splendour.

In **ST. VINCENT** the charming, happy faces that are a mixture of Portuguese, East Indians and black Caribs will greet you. Here too, you can escape the cares of civilization and with sweet abandonment rest in nature's lap in its true rustic setting. You may want to look at the fine collection of Carib Indian relics in the library; or perhaps you would prefer to take a packed lunch and climb up to the lovely crater lake which tops the inactive volcano, Soufriere. Whatever you decide, you'll just love this island with its neat, well-kept homes and gardens.

The island of **GUADELOUPE** looks like a butterfly with outstretched wings. It is really two islands separated by a river. There is the fascination of an East Indian village where goats are sacrificed in ancient rituals. Volcanic peaks, rushing streams, bungalows called "pergolettes," Iron Cathedral, Beach of Skulls, fishing and cockfighting are only a few of the island's exciting features.

ST. THOMAS. Here you will want to shop duty free in the buildings with soaring arches, Spanish tiled floors and thick walls. St. Thomas is thirty-two square miles of land with narrow alleys, old warehouses and shopping lanes lit with brilliant colors of tropical flowers.

SAN JUAN, Puerto Rico, is marked by the meeting of two worlds, the old and the new. The Morro Castle and Caribbean Forts give you the feeling of ancient Spain, while the up-to-date airport terminal, the gaiety of casinos and the shops filled with fine merchandise are forceful evidences of modern living. This city is satisfying to both the gay and the somber in spirit.

And so, decide now to go with us. We'll send you a free copy of

(Continued on page 27)

LET'S SHED SOME LIGHT

ONE OF THE things about which poultrymen ask questions concerns lighting programs for poultry. Seems as though our feathered friends are very much affected by the amount and intensity of light. Dr. John Shutze of Penn State, and Regional Poultry County Agent George Earl, Jr., of Ithaca have teamed up to shed some light on the subject. First of all, it is important to know what Old Sol's program of natural light is, as shown in the following table:

MONTH	APPROXIMATE NATURAL LIGHT
July	15 hours
August	14 hours
September	12 hours
October	11 hours
November	9 hours
December	9 hours
January	9 hours
February	10 hours
March	12 hours
April	13 hours
May	14 hours
June	15 hours

Replacement Pullets

Replacement pullets should not be exposed to increasing day lengths during the latter part of their development or they will mature too soon. How best to prevent the adverse effect of lengthening days depends on the type of housing.

In windowless houses, some poultrymen rear pullets by exposing them to a constant six or eight hours of light per day from hatching right through to 20 to 22 weeks of age, then gradually go up to 14 to 16 hours of light per day. Good egg production has resulted from this procedure, but the birds usually lay a higher percentage of smaller eggs than they do with some other arrangements.

Other producers with windowless houses use a 14-hour day from hatching to 16 weeks of age, and then decrease the day length to 9 hours for 4 weeks. Then at 20 weeks of age they increase the day length abruptly to 14 hours and continue this light period for the entire laying year. It is pretty generally agreed that increasing the day length to more than 14 hours in a windowless house has no advantage.

Windowless houses with fan apertures and perimeter slot inlets cannot be considered sufficiently light-tight for the use of a light control program unless these openings are equipped with light baffles . . . baffles that unfortunately reduce the capacity of the ventilation system. The light control program in such houses without special light protection should be managed as if they had windows.

Houses With Windows

Pullets reared on range or in houses with windows present a different situation. However, if we remember that increasing day lengths must be avoided during the developing period, it is possible to make up a good lighting schedule. Chicks hatched April 15 to September 1 can be reared under natural daylight until they are 20 weeks of age and then abruptly increased to 14 hours of light per day.

The day length provided by the time switches should be adjusted to bracket the natural day length; whenever daylight is supplemented with artificial light be sure to do it at both ends of the day and not on just one end. For laying hens, lengthening days are not detrimental, but shortening days will depress egg production even though the shortened day length may still be longer than 14 hours per day. Conversely, developing pullets within a few weeks of laying age should never be exposed to lengthening days, but decreasing day lengths are not detrimental to them.

Caribbean beckons

(Continued from page 26)

the itinerary which will give you full details and cost of the tour. Just fill out the coupon below and send it to us.

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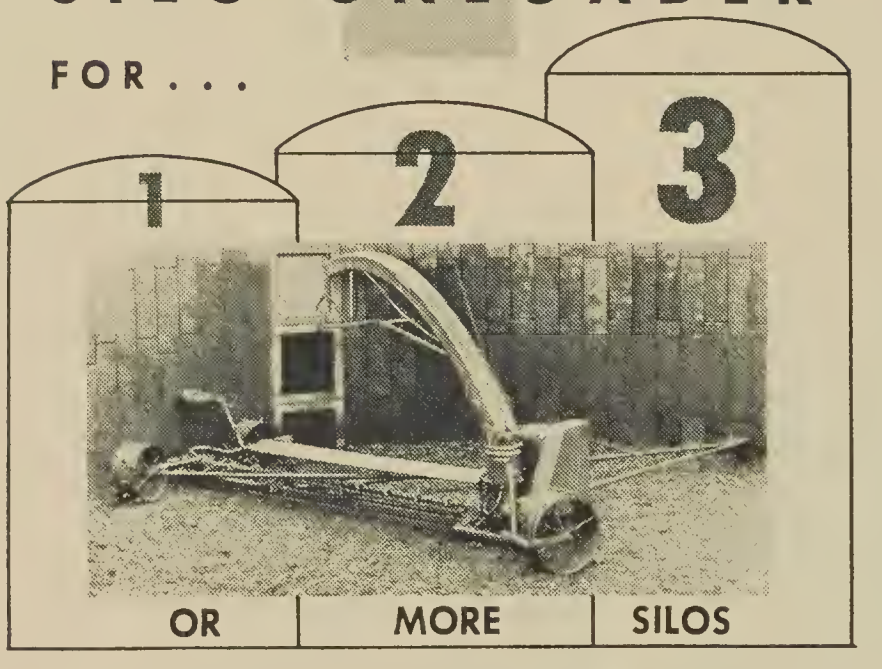
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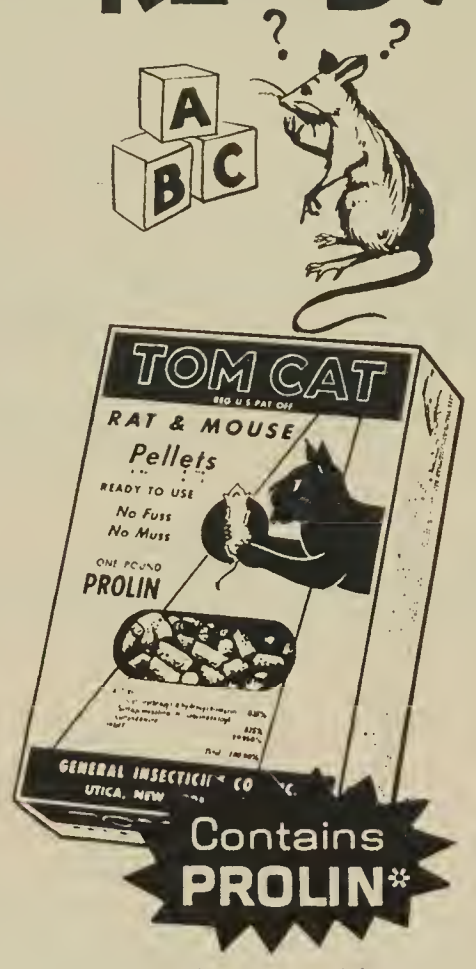
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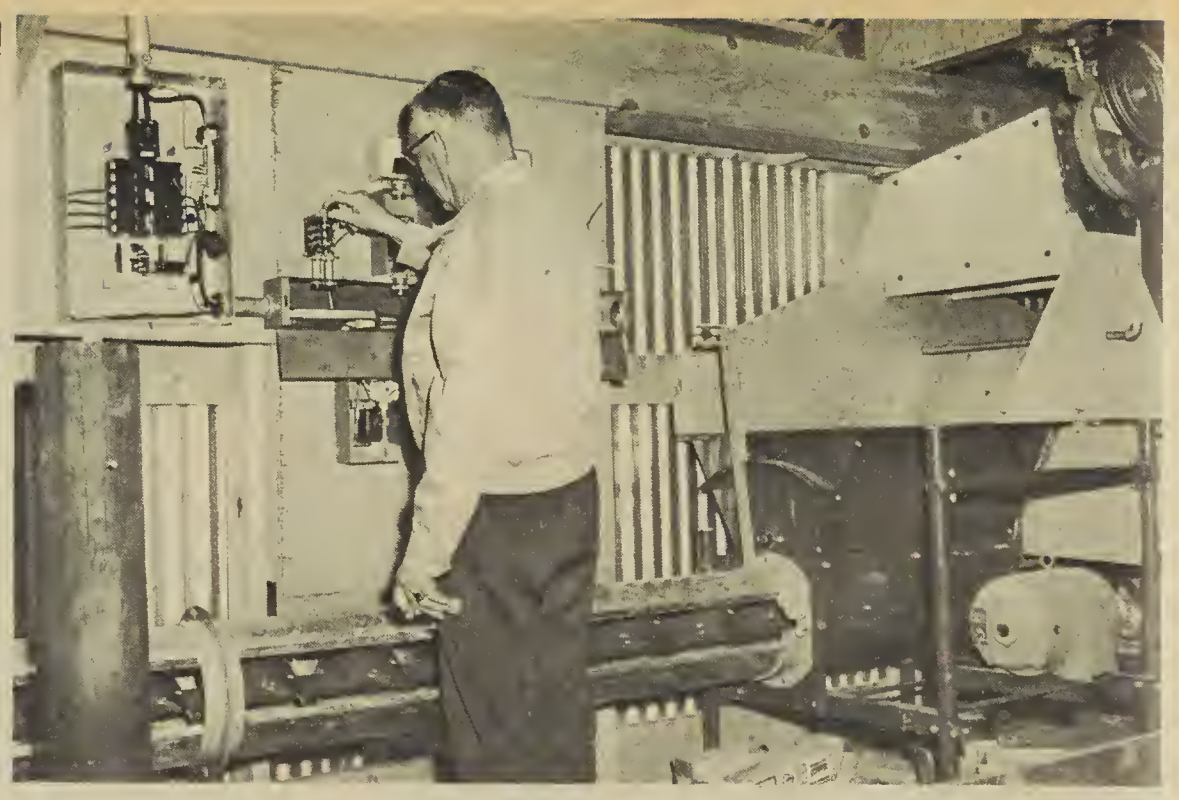


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Ralph Hadlock, regional farm buildings manager for Agway at Rome, New York, checks out some complicated controls on silage handling equipment at Jim Jones' new barn. Some different from the days of just a silage fork!

NEW DAIRY BARN

by GORDON CONKLIN



Jim Jones (right) visits with Robert Gibbs of the Portland Cement Association. Silos are 24 x 60's; silage from them is delivered to the hopper in the rear. Hopper in foreground is designed to receive greenchop from self-unloading wagon.

JIM JONES of Hamilton, New York, has a new clear-span 270 ′ x 42′ barn with 100 free stalls. Stalls occupy 230 feet and the other 40 ′ x 42 ′ portion has five sections . . . milkhouse with bulk tank; utility area housing hot water heater, vacuum pump, furnace, etc.; an office for records and "management time"; shower and lavatory room; and finally an area for calf pens. At present, cows being held for observation, the AI inseminator, or the veterinarian are confined in a section of the free stalls. The milking parlor, by the way, is a double four herringbone with eight milker units so two people can milk eight cows at a time; one person milking uses four units.

"Cold" Barn

This is a "cold" barn, without insulation on either the steel sides or the aluminum roof. A roofed opening along the entire ridge exhausts air drawn into slots along the eaves. Air moving up along the metal roofing from eaves to ridge prevents condensation and the "drip" so irritating to men and cows alike. Plastic panels spaced 13′ apart in the barn roof provide plenty of light.

Concrete walkways between the rows of stalls are 4 ″ thick. Stalls have earth floors covered with 9 ″ to 15 ″ of sawdust. A curb at the rear of the stalls prevents bedding from being pushed out. Jim rakes manure from stalls twice a day, and expects to refill sawdust in the beds twice a year. A blade on the front of a tractor pushes manure each day to a cross conveyor that moves it to a spreader.

Feeding for the herd comes from two 24 ′ x 60 ′ silos . . . one filled with haylage and the other with corn silage. One auger 140 ′ long goes in one direction from the discharge spout at the end of a conveyor bringing silage to the feeding bunk; another 60 ′ auger carries silage toward the other end of the barn. Along the entire length of the feed bunk is a curb 4 ″ x 16 ″ to inhibit "boss cows" and those priceless critters who like to take aim at the feed bunk. Equipment is set up so that greenchop can also be run directly from self-unloading wagons into the feed bunk "untouched by human hands."

"I could just imagine how long it would take to put up hay for 100 cows," Jim says. "And I could also imagine the time it would take to feed it from bales. We went around and looked at several setups the last few years to see what worked best. We liked the automation possible with silage handling, and the folks from Extension convinced us that good quality haylage can be as good as hay for feeding cows . . . and a lot easier to put up."

Uses Windrower

Jim filled one big tub with first cutting in 1964 in just ten days using a 10 ′ self-propelled windrower and two self-unloading wagons. Going the all-silage route eliminates his need for a rake, mower,

(Continued on page 29)

Dairymen up profits

WITH "FAST" ALFALFA

NORTHEASTERN DAIRYMEN like Arthur Biddle, Carmichaels, Pennsylvania, are showing increased interest in growing alfalfa with the help of post-emergence chemical herbicides. First-year results in 1963 indicate in dollars and cents that weed-free alfalfa can return $40 more per acre than oats.

The herbicide tested, Butyrac 118, was tried on five acres of Biddle's dairy farm. Bandseeded in April at the rate of 12 pounds of alfalfa per acre, plus 8 pounds of bromegrass, two cuttings yielded 21,905 pounds of top-quality alfalfa.

He made his first cutting July 13, producing 19,945 pounds of forage for his sheep and dairy herds. The second crop was cut on September 5, and even though there had been no rainfall since the first cutting, the five acres yielded an additional 5,960 pounds of lush roughage.

The post-emergence herbicide was applied with a boom sprayer in May at the rate of two quarts per acre. At this time, weeds were approximately one inch high, and the legumes were well sprouted.

Similar comments come from dairyman Tom Pevarnik, also located in the Greene County area. Pevarnik tested the same herbicide on four acres, one seeded to oats and the other three to alfalfa. Both crops were treated with Butyrac 118 when weeds were two inches high. For a comparison of the chemical's effectiveness, Pevarnik made a swing with his boom spray into his regular alfalfa fields. The same rate, 2 quarts per acre, was used throughout. "There were very few weeds in the oats," he says, "but the alfalfa was completely weed-free and we got two cuttings off it. You can see the difference where we made a swing into the regular alfalfa."

Selective Quality

The selectivity of the product comes from within the plants themselves. The biological system of susceptible weeds is such that it acts on the 4-(2,4-D)B and breaks it down into the powerful weed killer, 2,4-D. Legumes, on the other hand, do not seem to have the same capacity to cause this chemical change.

Incidentally, County Agent John D. Gapen reports that five out of the six farmers who participated in this test in 1963 made new seedings in 1964, using the 4-(2,4-D)B.

New barn

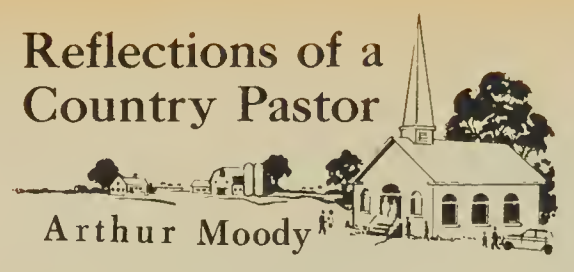
(Continued from page 28)

and baler . . . leaving his forage equipment inventory to include windrower, chopper, tractors, two wagons, and a blower. Jim will either hire a custom operator to bale some hay for young cattle, or work a trade arrangement with other farmers in the area for baling whatever hay he needs. Each silo, of course, has its own unloader, because Jim feeds corn silage and haylage each day.

There is a 35-acre night pasture, 15 acres of which are woods, where cows will be turned out in summer at night . . . but they will stay in the barn during the day. There are 340 acres on the farm (200 tillable) and Jim rents another 60 acres, of which 20 are cropland. He planted 85 acres of corn in 1964.

Jim has six boys aged 16, 15, 13, 6, 5, and 2 coming along to help. The Jones also have a daughter who has yet to celebrate her first birthday. The family is optimistic about farming in general and dairying in particular. They are convinced the new barn will not only provide greater efficiency, but also make it possible to produce an even higher-quality product . . . a consumer-oriented approach so essential in making decisions in a rapidly changing agriculture.

Reflections of a Country Pastor

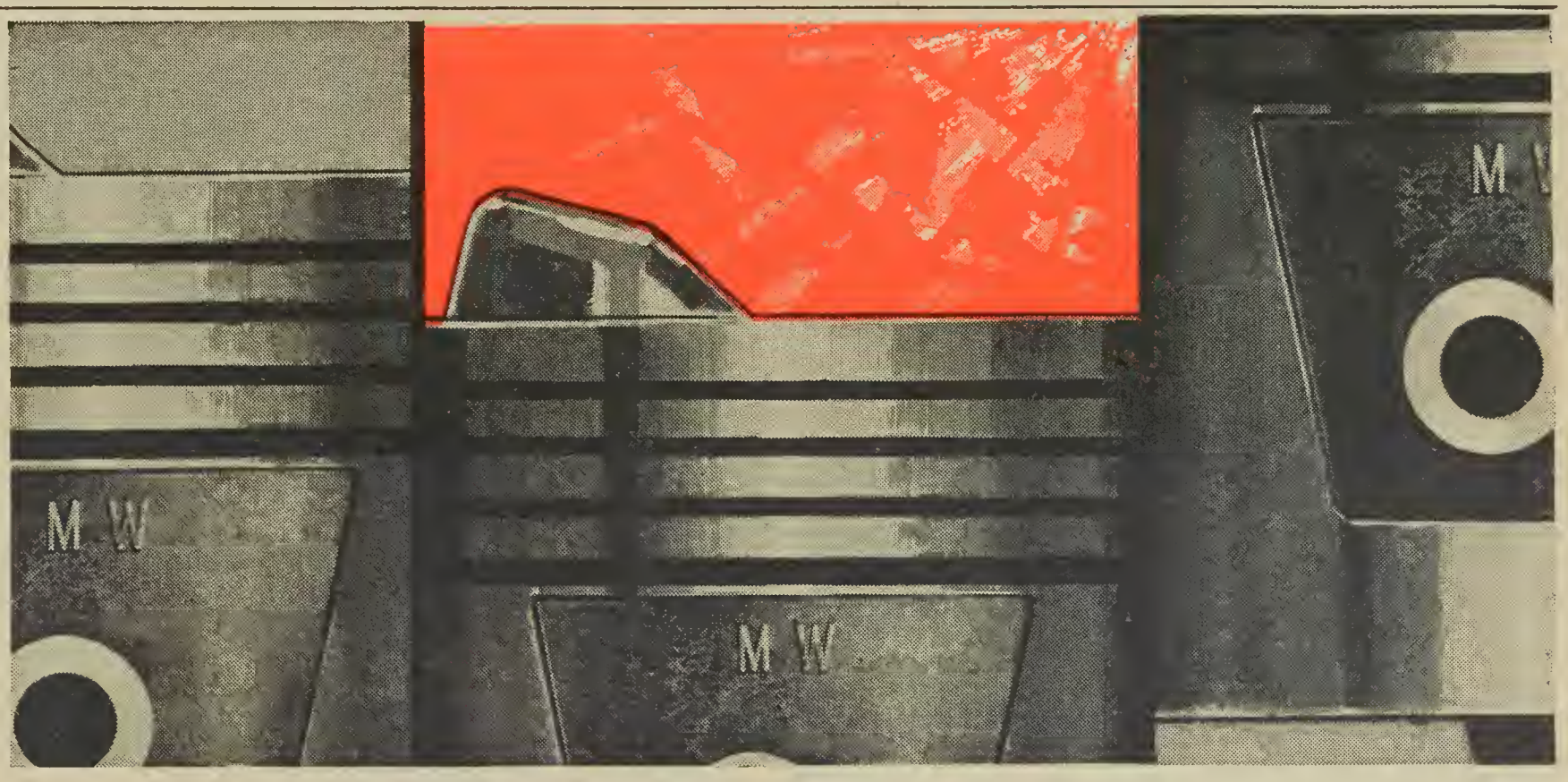


Arthur Moody

"EXERCISE THYSELF" is good advice to this spectator, sitting-satisfied age. There are several benefits from the physical aspect: better circulation, digestion, assimilation, beneficial to personal health. Add to this the social benefits: improved appearance, pleasanter human relations, and a general giving of good feeling to others. It is evidently worth trying.

A deeper meaning appears when we read, "Exercise thyself unto Godliness." Candidates for ordination are asked: "Are you going on to perfection?" That question is an urgent push toward better character, progress — improvement. How easy it is drifting downstream, out to sea, into the depths, over our heads. Strength of character results from resistance to temptation.

What IS Godliness? Jesus really set high standards: **Forgiveness** — not seven times, but 70 times seven;" **Sharing** — more than the small things "mint and cummin," the larger (more than the legal 10 percent), but "according as God prospers you;" **Social recognition** — not merely the greetings to old friends and associates, but to the strangers, the wayfarers, give yourself. "Who gives himself with his alms feeds three; himself, his hungering neighbor, and Me." Can we measure up?



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Case.....	410, 411	53.2	59.1	John Deere.....	4010D	84.0	93.5
Ferguson.....	30	29.3	33.5	Massey Harris...	44-4	45.6	54.9
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Ford.....	8N, 9N	25.7	28.6	Minn. Moline....	U, UB	41.5	52.1
Farmall.....	M, W-6	36.7	53.8	Oliver.....	77	37.2	47.0
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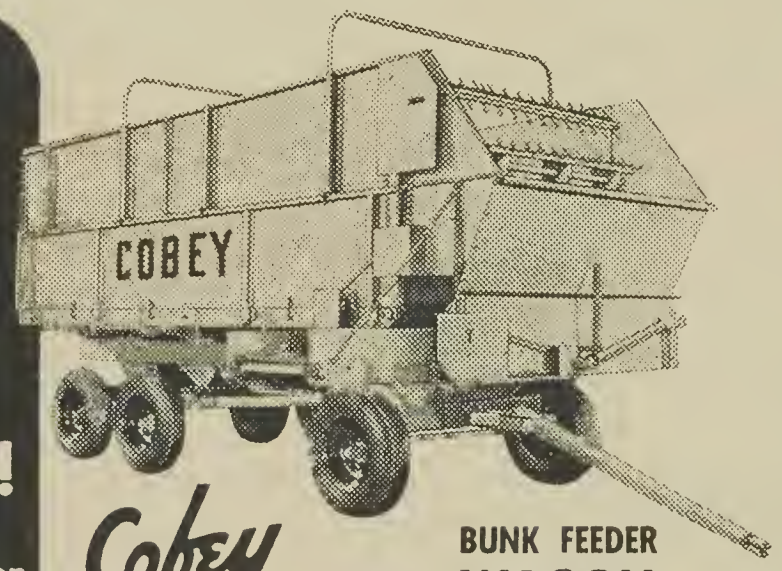
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FEEDING BEEF CATTLE

by J. I. Miller*

THE HUGE increase in the numbers of slaughter cattle marketed from feed lots is the most noteworthy single development in the beef industry that has occurred during recent years. The total gross income to farmers and feeders from the sale of slaughter cattle and calves is about eight billion dollars annually — approximately 23 percent of all gross farm income.

The post-war period has also brought the spectacular development of highly-mechanized, large commercial feed lots — each capable of fattening thousands of cattle annually.

Small Operators

There are also more slaughter steers and heifers fed by small operators who may feed up to 50 head or more for local customers. Such operations are supplemental to other farming enterprises or to off-farm employment. Since the feeding program can be adjusted to the feed and labor available, these small feeding operations are popular. They serve to market feeds and to give some return for labor, facilities, etc. that might otherwise yield little or no return.

Much attention has been given recently to the type, weight and finish of cattle that best meet consumer demands and which will be most competitive for the consumer's food dollar. This is certainly not a new problem, but is of greater concern now because of the high percentage of retail beef handled through self-service meat counters by chain stores.

Their "specification" buying is a dominant factor, and has resulted in less premium per cwt. offered for heavier, higher-finished cattle. This huge market has also encouraged further feeding of light, unfinished cattle in order to meet their requirements.

Tender and lean beef are the factors stressed by the housewife. Young (10-14 months) and moderately-fattened cattle meet these requirements most commonly. However, beef from such cattle lacks something in flavor, and may represent cattle too light in weight for the producer to find economical unless there is a premium per cwt. for them.

Likewise, the things determining the relative value of feeder cattle for the feed lot have received much attention. In recent years most cattlemen have been feeding on a negative margin; that is, the cost per cwt. of feeder cattle at the start has been higher than the selling price per cwt. as slaughter cattle. Therefore, the light weight and thin feeder steers are bringing the highest price per cwt.

This is logical since, on the average, such cattle represent less investment per head and likely will require less feed per pound of gain. The cattle breeder, on the other hand, has been stressing weight for age, feed efficiency and acceptable type grade. It is obvious that the producers of feeder steers are correct to stress these factors since the income per head will be greater even though the buyer may offer less per cwt.

Some of the current developments in cattle feeding include the following: (1) the feeding of high concentrate-low roughage rations; (2) the use of vitamin A supplement; (3) use of feed additives; (4) maximum fattening with corn silage; and (5) improvements in hay quality and in manner of feeding.

Research and practical experience have shown that cattle can be finished on an all-concentrate ration such as corn and cob meal, rolled barley, or a grain plus very little roughage. This is useful information for feed lot operators in areas of grain surplus and limited roughage, or when grain becomes a cheaper source of TDN than furnished by purchased hay.

Vitamin A

The vitamin A requirements for fattening beef cattle are currently being studied thoroughly because some cattle fed recommended standard rations have shown deficiencies. Apparently the actual vitamin A requirements and/or conversion of carotene to vitamin A by beef cattle are not constant but depend on several things.

These include the liver carry-over of the vitamin the cattle developed from previous feeding, the proportion of concentrates to roughages fed, how much disease and stress has been undergone by the cattle, and a variety of items which may directly affect how well the animal can convert plant carotene to vitamin A. Therefore, no general recommendation may be given with accuracy about the need of adding supplemental vitamin A to otherwise standard rations.

To date, stilbestrol has been the feed additive most commonly accepted. Various antibiotics are also being used by some cattle feeders,

(Continued on page 31)

*Department of Animal Husbandry, Cornell University.



Ambrose (left) and Phil Scudder have rebuilt their barn, using tanks like one shown below for manure handling and storage.



A NEW BARN

At 3:00 p.m. on last August 1, fire destroyed the dairy barn on the farm of Ambrose and Philip Scudder at Painted Post, New York. Of 185 cows, all but seven were saved, and a nearby hydrant provided water to save the milking parlor and bottling plant.

The milking parlor was damaged, but workmen from the company that installed it had it repaired and back in use in three days. In the meantime, part of the cows were milked at the nearby Dann dairy and the remainder in another barn owned by the Scudders.

Neighbors Helped

The barn burned on a Saturday, and the next day neighbors were on hand with trucks, bulldozers, and even a crane to clean up the debris.

The immediate question was whether to rebuild or sell the cows and buy milk for the retail route. The decision was balanced by the opinion of Phil's thirteen year old son, Ambrose Scudder II, whose answer was an unqualified "rebuild."

The next question was what to build.

"We had read stories in American Agriculturist about pen stables, free choice stalls and liquid manure handling," said Ambrose, "and we decided to move in that direction because it looked like an efficient system."

The pole-type barn is in the shape of a T with a feeding area 264′ x 64′ and a loafing area 168′ x 104′ with 268 free choice stalls in 8 rows.

A feeding bunk for silage runs the length of the feeding area, the silage coming by dump truck from a pit silo holding 4,000 tons. Along one side of this area are hay bunks next to the hay storage.

Liquid Handling

Manure will be pushed by tractor into two underground tanks holding 24,600 gallons each, from which the liquid manure will be pumped into a tank for spreading on the cropland. The two tanks are expected to hold all manure for a two-week period. For ventilation, there is a 24″ door under the eaves for the entire length of the loafing area. They can be closed during exceptionally bad weather. Then at the peak of the barn there is a vertical 6″ vent for warm, wet air to escape.

Editors note: Many of our readers will remember that Ambrose Scudder was named a Master Farmer in the years before World War II. His achievements are the more remarkable when you know that both hands were lost in an accident when in his early forties. His determination to adjust and his success in doing so have been an inspiration to many.

Feeding beef cattle

(Continued from page 30)

especially early in the feeding period during the time cattle may be recovering from shipment and while high roughage rations are fed. A new additive to mineral or salt mixtures, ethylenediamine dihydriodide, offers promise in the control of foot rot.

Corn silage is often the crop yielding the highest TDN per acre at the lowest cost, and many farmers are increasing the production of corn silage. A high corn silage — low-concentrate ration, properly supplemented, can produce satisfactory slaughter cattle and reduce the cost of feed lot gains in comparison with the more common fattening rations.

Good quality hay is valuable in all beef cattle rations. However, baled hay can not be used efficiently at the large, commercial feed lots having considerable mechanization. This has increased the use of silages and greenchop, which are fed mechanically.

Some baled hay is being fed in the chopped or ground form as part of a complete mixed ration. There is great interest in hay pellets or hay cakes for their greater ease of storage and feeding, and for some improvement in feeding value over long hay.



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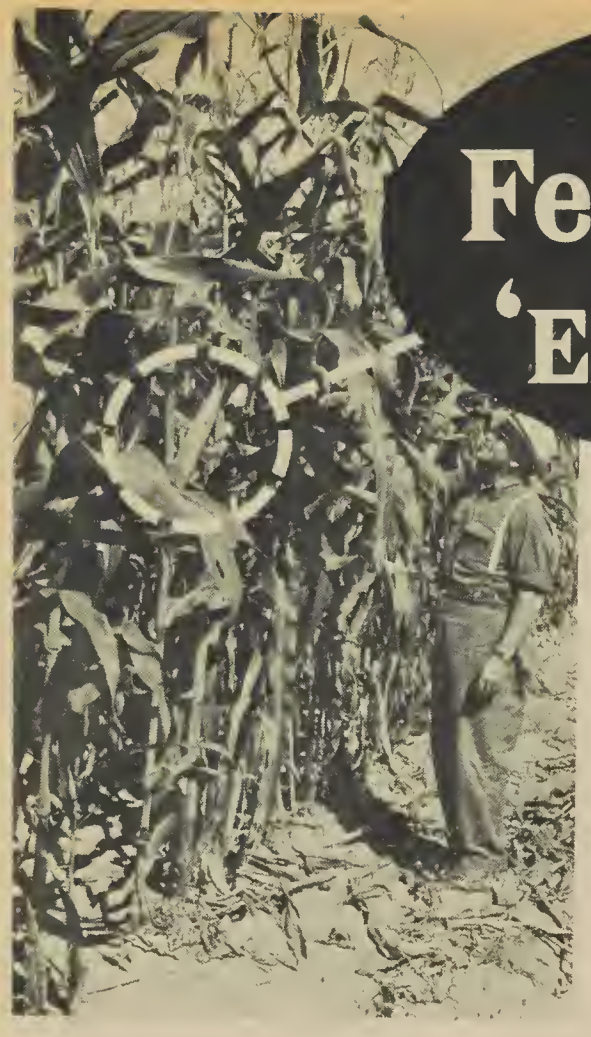
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LIVESTOCK SHOW

Top winners at the 15th Annual "Meat Animal" Sale at the Empire Stockyards in Caledonia, New York, were as follows:

4-H Division . . .

Champion lamb — Charles Fitzpatrick, Wayland.

Reserve Champion — Teri Lee Cook, Trumansburg.

Champion pen of lambs and Reserve Champion pen of lambs — Kevin Simpson, Caledonia.

Champion hog — Carol Waterman, Leroy.

Reserve Champion hog — Joseph Krenzer, Caledonia.

Grand Champion Steer — Robert Hager, Canandaigua.

Reserve Grand Champion steer — Mike Maloney, Geneseo.

Open Class Division

Champion and Reserve Champion lamb — John Mulligan, Belmont.

Champion pen of lambs — James McGuire, Oakfield.

Reserve Champion pen of lambs — John Mulligan, Belmont.

Champion steer — Barton Miller Farms, Freeville.

Reserve Champion steer — Lester Pearce, Scipio Center.

Champion pen of three steers and Reserve Champion pen of three steers — Elm Place Angus, Avon.

Champion hog and Reserve Champion pen of hogs — Fred Olmstead, West Bloomfield.

Reserve Champion hog and Champion pen of hogs — Leroy Poorman, Waterloo.



Dairy Princess — Marjorie Jean Heath (22), Chenango Forks, New York, has assumed the royal title of New York State Dairy Princess, and the duties of "speaking up" for milk for the more than 40,000 dairy farmers in the Empire State. Marjorie grew up on a 202-acre dairy farm, enjoys playing the organ, and likes to bake and cook.

Safety Contest — The New York State Rural Safety Council has a slogan contest for young people. The dates are September 1 through December 1, and all rural and suburban young people 18 years and under living in New York State can take part. The contest calls for writing a 30-second radio announcement on the subject of farm and home safety. Prizes consist of four $25 U. S. Savings bonds and certificates. For entry blank write to Professor E. W. Foss, Riley-Robb Hall, New York State College of Agriculture, Ithaca, N. Y.

Grange Committee — New York State Master Russell S. Curtis announces the appointment of a 10-man statewide Grange Dairy Action Committee. It is hoped to organize a Grange Dairy Action Committee in every dairy county.

Men are just the opposite of guns . . . the smaller the caliber, the larger the bore.
— Gilcrafter

AMENDMENT NO. 1

Are you willing to be taxed to pay part of the rent every month of families who make as much or more money than you do? That is exactly what New York State voters are being asked to do by Amendment No. 1, which will be on the ballot this month.

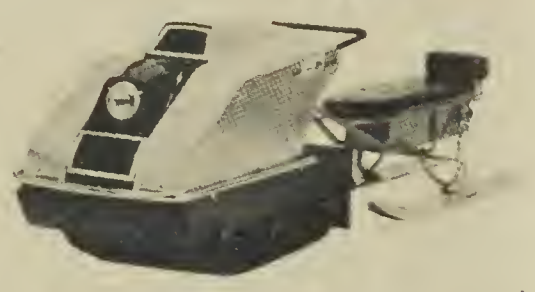
The amendment would remove the constitutional provision that limits low rent public housing to families of low income, and replace that limitation with wording that would permit the State to subsidize families of any income in state-aided housing projects. Your tax dollars would then be used to help pay the rents of families earning as much and more than you do.

Proposition No. 1, also on the ballot, would increase the State housing debt by $165 million, and the yearly sum of taxpayer money given away in rent subsidies each year by $7.5 million.

Now, these two questions, Amendment No. 1 and Proposition No. 1, won't be worded that way on the ballot. But that is exactly what they are asking you to do.

This is not a matter of expanding low rent housing for families of low income. Make no mistake about it. Amendment No. 1 will throw open the doors of taxpayer-subsidized housing to families of any income bracket! — Citizens Public Expenditure Survey, Inc.

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- PORTABLE—fits most car trunks.
- LIGHT—rides on top of any snow.
- SPACIOUS—carries 3 adults or 4 children.
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A 4-A BOY!

A letter received recently from Brigadier General A. T. Culbertson brings back memories of the many young people — Boy Scouts, 4-H'ers, Juvenile Grangers, and FFA members — who were recognized by American Agriculturist with our 4-A Award at the time of our Master Farmer banquets.

You see, General Culbertson was one of our 4-A boys — a Boy Scout. His interest in Scouting has continued, as evidenced by the fact that in 1964 he was given the Silver Beaver Award, one of the highest honors that can be presented to a Scout volunteer worker. The certificate in the picture reads: "For distinguished service to boyhood," and bears the signatures of President Johnson, and past-presidents Herbert Hoover, Harry S. Truman, and Dwight D. Eisenhower.

After graduation from Parks Air College in Illinois, Mr. Culbertson went with an air flying school and then enlisted in the (then) Army Air Corps. He had wide experience in the European Theater during World War II, has many decorations, and now at last has drawn an assignment in his home state of New York — in command of the Rome Air Development Center.

It makes us wonder what others of the 4-A Award winners have been doing all these years!

BENDER RETIRES

Dr. Carl B. Bender will retire from his work as director of grassland research at the Sperry Rand Corporation as of December 31. He has been on leave of absence at his home (20 Evans Drive, Cranbury, New Jersey) since September 1.



Carl Bender

He has served world agriculture in many capacities for the past 46 years . . . as researcher, teacher, and author. Throughout his career he has been a leading advocate of grassland farming, and is internationally recognized for his pioneering work with grass silage. He spent 30 years at Rutgers University, including 25 years as professor of dairy husbandry on the staff of the College of Agriculture.

Joining Sperry Rand Corporation in 1951, Dr. Bender worked closely with Sperry Rand's farm equipment division, the New Holland Machine Company. He was editor of the New Holland Grassland Manual, a book published in 1962 and considered one of the most comprehensive works on grassland farming ever issued.

U. S. farm fire losses reached an all-time high of $175 million during 1962 — 7 percent above 1961. Farm fires strike about two out of every 100 farms each year. The proportion of the property value destroyed in a farm fire averages about six times that of urban fires.

CONGRATULATIONS!

The National Grape Cooperative has announced that in December, 1964, it will redeem two complete series of allocation certificates totaling $6,823,262. The series 1956 and 1957 allocation certificates are 20-year promissory notes issued to members of the National Grape Cooperative in part payment on their 1955 and 1956 Concord grape deliveries to plants of The Welch Grape Juice Company. Both series will be paid at full face value.

Our congratulations on a most successful business operation!



Stub Davis, long-time American Agriculturist representative in Delaware County, sent us this picture of Gordon Tyler and his team of goats. Gordon made the wagon, the harness for the goats, and the decorations. He has recently won recognition in an art contest, but finds time also to be active in Future Farmers, 4-H and many other agricultural organizations.



The fountain in the square at Salobrena, Spain has supplied the townspeople's water for many centuries

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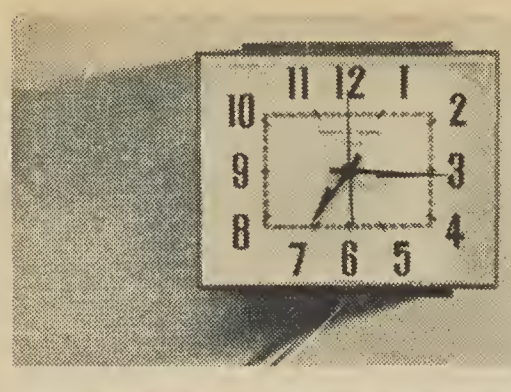
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Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.			
Olean	WHDL	1450 kc.			
Utica	WBVM	1550 kc.			

Northeast Radio Network

Ithaca, New York



DRIEST YEAR ON RECORD

By Amos Kirby
New Jersey Editor

The 1964 crop-growing season is over. For the most part farmers have inventoried their costs and returns. We make no reference to profits; that seems to be one subject best left alone.

This has been the driest year on record. By mid-September — about the last date when rains could help — except for a few fall crops many parts of New Jersey had a deficiency of over 13 inches of rainfall. Add to this the 10-inch shortage in 1963, and in a 14-month period (July 1, 1963 to September 20, 1964) much of New Jersey has had a total shortage of over 23 inches.

Water — It is our observation, based on interviews with many growers, that water will be a big determining factor in next year's plantings. Those who had water this year came through with fairly good yields; those without find themselves in the minus column. I have seen crops that were complete failures due to the drouth; I have seen farms with yields of 30 tons of tomato per acre — water made most of the difference. The presence or absence of creeks, springs, ponds, or deep wells can easily add from $150 to $200 per acre to the value of farmland for those producing fruits and vegetables.

Prices — If there is any single cause for complaint among farmers from Sussex to Cape May counties it is the matter of prices.

In a confidential letter on the farm situation from a person who has very wide contacts in the agricultural field, I learn that changes are coming to New Jersey, and some of them are due to the low prices that growers have received.

Prices offered by processors for asparagus and tomatoes are bringing about a distinct change in the acreage pattern. When asparagus growers start to make inquiries for aid under the disaster program, something must be wrong.

Here and There

I had asked Francis Raymaley, Division of Markets, State Department of Agriculture, for a report on a special assignment that includes the development of a long-range program for expansion of the processing industry. Raymaley tells me that progress is being made.

This matter of farm prices is summed up in one question asked by Mr. Raymaley: "Are we as consumers honestly paying enough for food to keep farmers as partners in the affluent society?"

Tomato Harvesters — South Jersey tomato growers have had two demonstrations on tomato harvesters; for the most part the viewers agree that these machines do an excellent job.

The California Packing Corporation demonstrated a Hume harvester on the Alfio Patane farm in Gloucester County, and the Campbell Soup Company displayed the FMC harvester on the William Stemmer farm in Burlington Co.

My own observations are: (1) The mechanical harvester is here to stay; (2) much progress has been made in developing varieties of fruit that will mature up to 80 percent of fruit at one time; this is the most difficult problem; (3) at the present time many growers believe that labor costs now prevailing might be lowered because of potential competition with mechanical harvesting; (4) present varieties under 1964 conditions produced yields of 15 tons of marketable tomatoes per acre.

Egg Grader — Clayton Stains, manager of the Flemington Agri-Market (formerly the Flemington Agricultural Marketing Association), reports on the new egg-grading machine that has been installed at Flemington. This machine can grade, candle, clean and pack 66,000 dozen eggs each day.

Barley — A number of New Jersey barley growers have sown a new variety, Tschermak, for a North Jersey brewery, where this variety has been found superior for their purpose. The purchaser has offered a premium on the grain of 40 cents per bushel, plus 10 cents for storage. This is a pilot test program, and the buyer will accept 8,000 to 10,000 bushels in 1965.

Norman I. Jones, assistant Extension specialist in grain crops, says that the Tschermak variety is a superior feed barley for use on farms, and has a number of advantages over the Wong variety now commonly grown.

Purely Personal

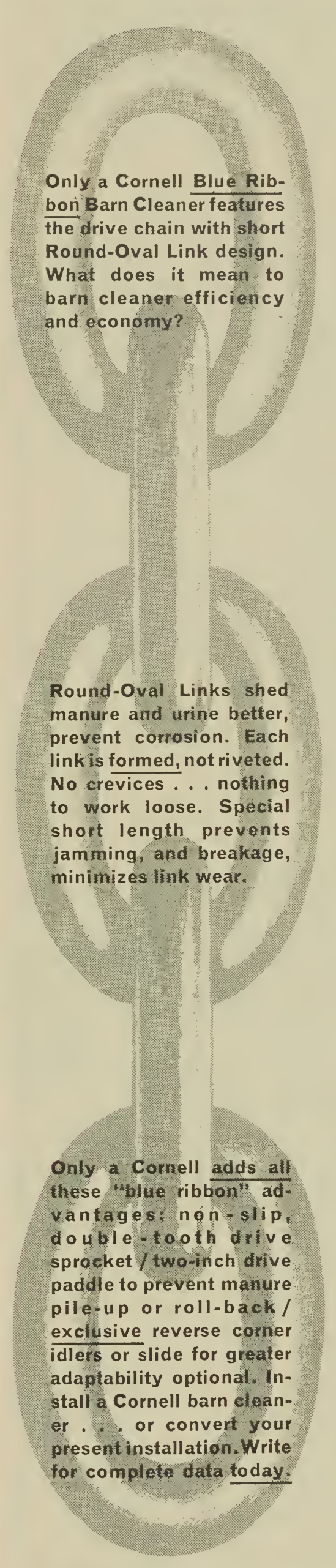
Secretary of Agriculture Phillip Alampi has been elected president of the National Association of State Departments of Agriculture. This is an organization of top officials from state agricultural departments of the entire United States.

Honored — Richard Lorenzo, Newton, has been selected for the New Jersey Star State Farmer Award by the Future Farmers of America.

Congratulations — Dr. Roy Flannery, Extension specialist in soils at the New Jersey Agricultural College, is receiving international recognition for his part in the development of automated soil analysis. Dr. Flannery developed a faster way to analyze soils so that as many as 40 complete tests can be made in an hour.

Prize — Pamela Miller (14) 4-H Club member from Lebanon, has sold one of the highest-priced lambs in Club circles. At the lamb sale held at the Fleming Fair she received $576.60 for her 93-pound lamb, purchased by the Grand Union Stores at $6.20 per pound. Reserve champion, grown by Donald Kniffen (12), Far Hills, sold for $3 per pound.

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A case study

(Continued from page 7)

that amounted to $45.22 per cow. It should be remembered also that the cows and crops had been charged with the value of the operator's time and interest on his investment before the profits were determined. That labor income figure mentioned earlier of $12,016 probably measures best the success of the operation, because it's the amount farmer 434 earned for his labor and management after paying operating expenses, adjusting for changes in inventory, and deducting an interest charge on the entire farm business investment.

Farmer 434 has just been "tooling up for production." Five years ago the 185 acres of crop land were bought with the anticipation of a 75-cow, two-man business. Time has passed, new things have been learned and developed, and the farm business is now being moved toward a 120 to 130-cow, two-man dairy.

Recently, farmer 434 added a full-time assistant with the aim of developing a partnership "if things work out right." He wants the assurance that if he gets ill his wife will not have trouble keeping the business going; he wants weekend and day-off freedom without having to look for someone to take over while he is gone; and he wants to gain more of the efficiencies that his system can provide.

Immediate plans for taking advantage of his system call for adding more cows, building more free-stall barn space, and adding 20 feet onto his 40-foot silo. This summer he is dry-lot feeding his cows with his carryover corn silage, and with some purchased hay. Almost all of his land will go into corn silage.

Now that the labor has been cut very nearly to the minimum, an attack on the feed cost offers the greatest potential for reducing the cost of producing milk on this farm. Work will be done on the corn silage crop, with the aim of growing higher-yielding, lower-cost silage. In addition, they expect some reduction in milk cost of production by spreading the parlor and equipment costs over more cows and more milk.

FFA WINNERS

National winners of Future Farmers of America awards for the North Atlantic region are: Crop Farming, Ronald Guerrette, Caribou, Maine; Farm Electrification, Ted Wolff, Johnsonville, New York; Farm Mechanics, Ray Lester Mack, Belvidere, New Jersey; Livestock Farming, Glen Powell, Red Creek, New York; Poultry Farming, Gerald Long, Fredericksburg, Pennsylvania; and Soil and Walter Management, Dennis Budine, Walton, New York.

Teachers of vocational agriculture who received Honorary American Farmer degrees were: George G. Halloran, Hamilton Central High School, Hamilton, New York, and Wyman E. Hawkes, Bristol County Agricultural School, Segreganset, Mass.

SNOW GOES!

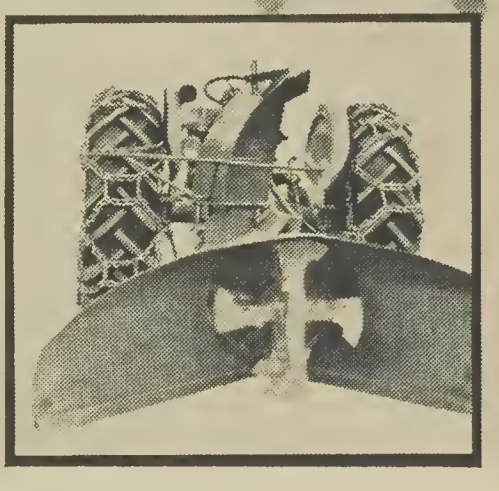


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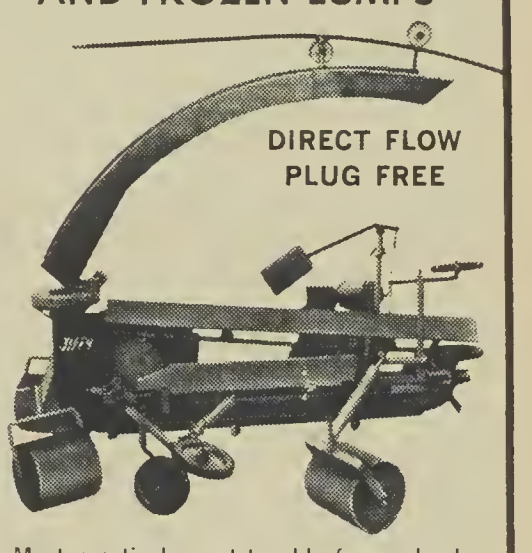
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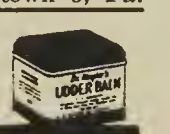
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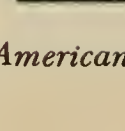
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Dates to Remember

Nov. 5 - Seventh Annual New Jersey Marketing Institute, Nassau Inn, Princeton.

Nov. 5-6 - Annual meeting New York Dairy Herd Improvement Cooperative, Jamestown, N.Y.

Nov. 9-11 - New York Farm Bureau Annual Meeting, Syracuse, N.Y.

Nov. 9-14 - Annual Pennsylvania Livestock Exposition, State Farm Building, Harrisburg, Pa.

Nov. 10-12 - Twenty-sixth Annual New York State Insecticide and Fungicide Conference, Bibbins Hall, Ithaca, N.Y.

Nov. 11-12 - National Brown Swiss Association Meeting, Country House, Syracuse, N.Y.

Nov. 12-14 - International Apple Association Annual Convention, New York City.

Nov. 14 - Pro-Fac Annual Meeting, Batavia High School, Batavia, N.Y.

Nov. 13-21 - Royal Agricultural Winter Fair, Royal Coliseum, Toronto, Canada.

Nov. 15-19 - 56th Annual Meeting American Society of Agronomy, Kansas City, Mo.

Nov. 17-18 - Annual Convention New Jersey Farm Bureau, Berkely-Cartaret Hotel, Asbury Park, N.J.

Nov. 20-26 - National Farm-City Week.

Nov. 23-24 - Annual Pennsylvania Grassland Conference, Nittany Lion Inn, State College, Pa.

Nov. 27-Dec. 5 - International Live Stock Exposition, Chicago Stock Yards.

Nov. 29-Dec. 3 - National 4-H Club Congress, Chicago, Ill.

Nov. 30-Dec. 4 - Dairy Herd Management Short Course, Cornell University, Ithaca, N.Y.

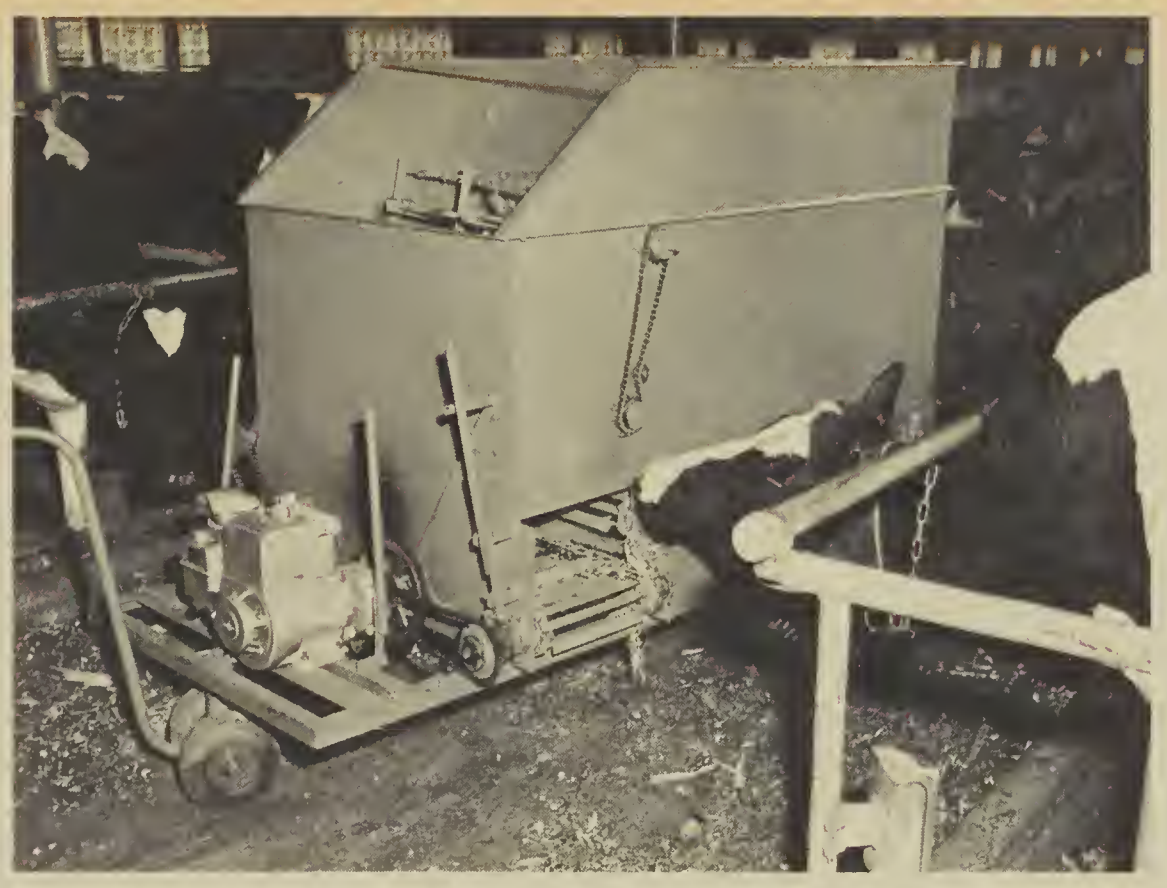
AN APOLOGY

In our October issue we mistakenly listed October 24 and 25 as dates for an Agway annual meeting. There is no Agway annual meeting this year. We are indeed sorry for any inconvenience caused through our error.

Would Like Pictures

I am interested in collecting pictures of the New York Ontario & Western Railway. I wonder if some of your readers have pictures (including negatives or postcards) they would loan me to copy? I will return them in as good condition as I receive them, and would make enlargements (up to an 8 x 10) for the privilege of copying them.

My interest in the old road stems from the fact that my grandfather carried the mail out of Rock Tavern Station for 30 years, from 1905 to 1935, so I knew the O & W very well. Rock Tavern was once known as Rocklet Post Office and Rock Tavern Station. If someone has a picture of the actual Rock Tavern that stood 75 feet or so across from the station I'd like to copy it. — **Frederick A. Lewis, Rock Tavern, N. Y. 12575**



Look at that cow reach for the silage she expects to be coming! Self-propelled and self-unloading silage cart is steered by handle and wheels at left.

SELF-PROPELLED SILAGE CART

Roger Becker of Cobleskill, New York, uses a self-propelled silage cart made for him by Uebler's of Vernon, New York. It has two speeds forward, two in reverse, and is powered by a four horsepower gasoline engine. It holds 40 bushels of silage, has an on-off clutch for the mechanism that moves silage; another clutch controls drive for the wheels.

There is an apron chain on the floor of the cart; two beaters deliver to a cross conveyor that in turn discharges silage to the manger. It's actually a small-scale copy of some types of self-unloading wagons.

Roger is tickled with this machine, reports that it works well with either corn silage or with long-cut hay crops harvested with a flail chopper for greenchop during the summer.



ACRES OF MILK

Photo: Babson Bros. Company

Here's a picture that dramatically illustrates increasing levels of milk production. Robert (left) and Paul Ety of Lancaster, Ohio, stand in front of their double picture window milking parlor amidst 12,240 gallon jugs of milk. Their 102 cows jumped in production the first half of 1964 by an average of 1,032 pounds of milk per cow, or 12,240 gallons more milk per year for the entire herd. If you're a dairyman whose herd has been posting new production records, here's a way to visualize what's happening on your farm!

The Etys feed 50 percent corn silage and 50 percent grass silage, plus an average of 15 to 20 pounds of grain daily. They use a liquid manure handling system that "beefs up" manure fertilizer value by adding nitrogen, phosphorous, and potash to the material that's spread monthly. If you're going to be in the Buckeye State, here's a place you may want to visit.

THE CHAROLAIS

The Charolais breed was imported from France into Mexico by Jean Pugibet, who brought over 29 cows and 8 bulls. For ten to fifteen years these cattle had a tough time. Shipped illegally into the United States, they were quarantined — and many of them died in quarantine. Some were sent back across the border again.

But now the dual-purpose breed is spreading rapidly in every state of the Union. Ireland, Japan, and the West Indies have recently purchased some, and they are found also in Russia, South America and Canada. They are very adaptable to varying climates, and in some cases have been crossbred with the English breeds.

A presidential agreement between the presidents of Mexico and the United States forbade the crossing of these cattle over the border, but this ban has been lifted partially to allow a limited number of bulls across.

It is not uncommon for the females in this breed to weigh a ton or more; bulls have checked out at 3,000 pounds. The young stock gain at the rate of 100 pounds or more per month, and the prime quality of their cuts (well-marbled meat with up to 68 percent dressing percentage) makes them very desirable. They are excellent breeders and gentle in nature. — Werner Kohlmaier, Manager, Linden Farm, LaGrangeville, N.Y.

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (required by Act of October 23, 1962; Section 4369, Title 39, United States Code) of **American Agriculturist** published monthly at Ithaca, N. Y., filed October 1, 1964.

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	Average No. Copies Each Issue during Preceding 12 Months	Single Issue to Nearest Filing Date
Total No. Printed (Net Press Run)	191,803	189,090
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Sales through Agents, News Dealers, ar Otherwise	None	None
Free Distribution (including samples) by Mail, Carrier Delivery, ar by Other Means	4,898	7,048
Total No. Copies Distributed	191,803	189,090

I certify that the statements made by me above are correct and complete. A. James Hall, Publisher





VISITING

with

Home Editor Augusta Chapman

THIS MONTH I'd like to tell you how much I enjoyed my visit to the 1964 New York State Fair, oops . . . excuse me, the New York State Exposition. Maybe the program just happened to appeal to me more than in other years, but I thought it was the best one for a long time. All of the Expo advertising and promotion releases had promised me "the time of my life," and I certainly did enjoy every minute of the two days spent there.

I arrived at the fair grounds bright and early on opening day, almost in time to help with the ribbon-cutting ceremonies! The first Spelling Bee in over 20 years was scheduled for that afternoon, and I've always loved spelling bees. Even the embarrassment at "going down" on my first word (spelling gnat with a "k") in a community spelldown when I was a kid, didn't dampen my enthusiasm for long!

Robert Earle of G. E. College Bowl fame was on hand to pronounce the words to 24 young people, all under 16 years of age. The first word missed was artillery, then apparel, ominous, blamable, and on through heinous, exhilarate, panacea, and many others until only two contestants remained: Mary Beth Joy, 13, of Oneida, N. Y., and Carol Egloff, 14, of Erie. The two girls hurled words back at Robert Earle for a total of 24 completed rounds until Carol was finally stumped on dioecious. Mary Beth was declared the winner when she spelled this word and went on to also correctly spell bacteriostasis!

Blue Ribbons Galore

Prize winning articles shown in the Home Arts and Crafts Departments were very lovely this year, and beautifully displayed. There were knitted and crocheted masterpieces, needlepoint, crewelwork, hooked rugs, hand woven fabrics, ceramics, mosaic tile, and many, many more. There was one gorgeous length of hand woven dress or suiting material that I'd have given my eye teeth to have, and it didn't even win a prize!

Children's Theater For Adults Too!

For two years I've been trying to see one of the Act Wagon plays presented by the Auburn Children's Theater. My appetite was whetted in 1963 by one scene from "The Merry Pranks of Tyll," which they gave at the Women's Day Luncheon. Finally, this year, I skipped a foods demonstration to watch them do "Jack and the Beanstalk." It was wonderful!

Jack's cow stole the show — fluttering her eyelashes, swishing her tail, and waggling both fore and aft to everyone's delight. And the giant was magnificent, as in fact was each player. I hope the Act Wagon will remain a permanent feature of the Women's Division program, and do be sure to see these young folks on your next visit to the Fair.

Blueberry Recipes

The real highlight of my visit, however, was two food demonstrations given by Mrs. Elsie Masterton, master chef of Blueberry Hill Farm in Vermont and author of the Blueberry Hill Cookbooks. The recipes given below are from these cookbooks and ones she demonstrated so easily and delightfully at Syracuse.

She also made two chicken dishes which looked delicious, but as these recipes are quite long, I'll give them to you one at a time in future columns. Also, maybe I'll get a chance to try them in the meantime.

I liked Elsie Masterton as soon as she stepped into the demonstration kitchen and was completely in love with her by the time the second demonstration was over. She's one of the best food demonstrators I've ever seen, and a person so friendly and natural acting that instinctively you'd like to know her well.

Elsie's story reads like a novel! Just twelve years ago she was a successful secretary in a big city. Then, swept off her feet by John Masterton and his visions of owning a ski resort, she married him and moved to Vermont to help develop their 1000-acre farm and make the dream come true.

However, for three seasons they waited in vain for the heavy Vermont snows that were to make them successful, and as they waited, the debts grew higher and higher. Finally, in near desperation they decided to open a small country inn, and Elsie began her cooking career, using many recipes and hints learned from her mother.

Also, from the vast blueberry acres on their farm, she started to make blueberry jam. This proved so popular that she now makes 25,000 jars a year, selling it to thousands of mail-order fans, and with the gourmet section of B. Altman's in New York proudly stocking it for their customers.

Eventually, after perfecting her cooking skills, Elsie collected some 300 recipes and published them in "**Blueberry Hill Cookbook,**" which to date has sold over 20,000 copies. Next came her "**Blueberry Hill Menu Cookbook,**" containing a party and family menu for each month of the year, also hints on how to use leftovers from each menu. Here, all 300 recipes are different from those in the first book except a pie crust and a salad recipe Elsie loved so much she couldn't omit them. And by now, a third book, "**Blueberry Hill Kitchen Notebook,**" should be in the stores.



Photo: Aubrey Jonion

Elsie Masterton, master chef of Blueberry Hill Farm in Brandon, Vermont, and author of some of the finest cookbooks written in recent years.

Elsie Masterton is the mother of three daughters, she conducts her own cooking school in Boston, and has a regular program over Station WGY, Schenectady.

And now, here are those recipes!

BROWN SUGAR BLUEBERRY MUFFINS

- 1 beaten egg
- 3/4 cup light brown sugar
- 1/2 cup milk
- 1 tablespoon melted butter
- 1 1/2 cups flour
- 1/4 teaspoon salt
- 1 tablespoon baking powder
- 1 1/2 cups fresh or frozen* blueberries
- 2 tablespoons flour
- grease for muffin tins

Preheat oven to 425°F. Mix beaten egg with brown sugar and milk. Add and mix in melted butter. Sift together 1½ cups flour, salt and baking powder. Combine wet and dry ingredients quickly, and do not overmix.

Fold in blueberries tossed with 2 tablespoons flour. Fill 1 dozen well greased and floured muffin pan sections two-thirds full and sprinkle with sugar. Bake 12 minutes in hot oven or until they test done with a skewer. Loosen muffins and serve hot.

*Elsie freezes blueberries the same way I do — dry, with no sugar or syrup. And if we've picked them ourselves or know who has picked them, we don't even wash them!

BLUEBERRY APPLE CRISP

- 1 cup flour
- 3/4 cup sugar
- 1 teaspoon baking powder
- 3/4 teaspoon salt
- 1 egg
- 3 cups tart apples, peeled and sliced as for pie
- 2 cups fresh or frozen blueberries
- 2 tablespoons light brown sugar
- 1/3 cup melted butter
- 1 teaspoon cinnamon-sugar
- butter for greasing dish

With a fork, mix until crumbly the flour, sugar, baking powder, salt and unbeaten egg (chop, don't stir). This is the topping.

Place apples and blueberries in a greased baking dish and sprinkle with 2 tablespoons brown sugar (more if apples or berries are very tart). Sprinkle topping over fruit. Dribble melted butter over the topping and sprinkle with cinnamon-sugar.

Bake in moderate (375°F) oven for 30 minutes or until topping is lightly browned and baked through. Test it with a fork. If it isn't browned enough to suit you, turn up the oven heat for a few minutes (6 to 8 servings).

MAMA'S SPONGE CAKE

- 6 eggs
- 1 1/2 cups sugar
- 1 1/2 cups flour
- 3/4 cup orange juice
- 1 1/2 teaspoons baking powder

Separate the eggs and set aside the whites. Beat egg yolks until light and lemon colored. Add sugar and beat until granular consistency disappears (about 3 minutes at medium speed in electric mixer). Add orange juice, beating until well mixed, then continuing for 2 minutes more. Sift together flour and baking powder. Add to

(Continued on page 41)



FROM WHOM ALL BLESSINGS FLOW

by Edith Shaw Butler

The good things of the earth are gathered now
To make the heart of man rejoice this day,
Remembering the gifts of field and bough,
The rich abundance he has stored away.
But though he plows the land and plants the seed,
It must have sun and rain to make it grow
To satisfy the age-old human need.
Grateful, he thinks from whom all blessings flow.
The stubble field marks where the land rests, sere
And brown, in quietness until the spring.
After the bright fulfillment of the year
There comes this season of remembering;
And so he gathers loved ones in to share
His feast of harvesting with heartfelt prayer.

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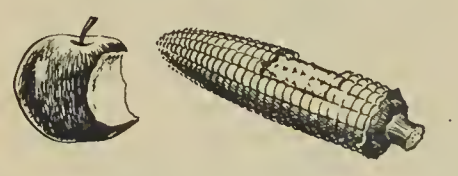
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NOVEMBER GARDEN TIPS

by Nenetzin R. White

Every fall about this time, I get letters asking what to do with geraniums that have been brought into the house before frosts came. Just about now, they are often "leggy" and have yellowing foliage. These geraniums can either be grown as house plants or held over until next spring.

If you are going to use them as house plants, you will need a real sunny window, in a rather cool room. Geraniums do need a lot of light, and you may want to supplement the natural sunlight with some artificial light.

Usually it is advisable to cut back the plants. True, it takes quite a while for them to grow new leaves and they will look "stubby" for a while, but the resulting plants will be most superior. Use a good potting soil mixture and fertilize them every four or five weeks. Do not water geraniums until the soil is dry, and aerate your soil with sand or some such material so the plants will not become waterlogged.

The cuttings you have removed will root readily in water or sand. When they have sufficient roots, pot them and treat the same as the other plants. They should be good specimens by spring.

Now, if you know that you don't have sufficient light, or prefer not to have the plants around the house through the winter, there are several methods of holding them over until spring. Most of these are successful, but I can't guarantee 100 percent results. A cellar is a necessity. An old fashioned, dirt cellar is best, but with care, you can have good results in today's modern basements. Put the plants in a cool, reasonably dark corner, and they can be left to winter over in their original containers. Supply a bit of moisture if the cellar is dry.

If you prefer, dig the plants, pack the roots in a mixture of damp peat moss and soil, cover with moist burlap, and put them in a cool place. If you have enough moisture, the plants can be dug and tied to a rafter. This sounds contrary to all rules for plant care, but works well in a damp cellar.

The storage of summer flowering bulbs also seems to present a problem to many of you readers. Let me make a general statement: these bulbs are to be held over winter for spring planting, and your object is to keep them in their fall condition until spring.

"Glads" rarely need any covering, but are laid in a single layer on shallow trays. If you are wintering over tiny cormlets, they may need a shallow layer of peat or sawdust to keep them from drying out excessively.

Dahlias are large fleshy roots and need some moisture to keep them plump, but not enough to start growth. A bushel basket lined with lightly dampened peat is usually successful, but you should check them every two or three weeks — adding a bit of moisture if necessary, or aerating the peat if they are too damp.

Tuberous rooted begonias can be stored in much the same manner as dahlias, or they are sometimes left in their pots and covered with peat or burlap. The main thing to remember with any summer flowering bulbs is to try and keep them as they were in the fall. This usually means frequent checking through the winter.

DO YOU HAVE . . .

A recipe for Pennsylvania or Dutch Surprise Cake? A long-time reader of A.A., Iona M. Pike, Box 645, Jacksonville, Oregon, says, "The base is a pie dough, and a cake dough is poured into the raw pie shell. Then strawberries or blueberries made into a syrup are poured on the cake dough and baked. When done, the syrup is between the pie crust and cake, and it's delicious."

A recipe for Macaroni Pudding? Miss Hazel M. Babcock, Bear Mountain, New York, says her mother used to make this about 30 years ago. She can't remember how it was done and has tried to duplicate it without success.

VISITING

(Continued from page 40)

egg mixture and beat until thoroughly assimilated, then another 2 minutes.

Beat egg whites until stiff, but not dry. Fold whites into rest of batter carefully, until no specks of white are seen. Turn batter into an angel food tin. Bake in moderate oven (325°F) for 30 to 40 minutes, or until cake pops back into shape when you touch it firmly with your finger. Serve with Sour Cream Sauce and Hot Blueberry Sauce.

SOUR CREAM SAUCE

1 pint sour cream (commercial)
2 teaspoons vanilla
2 tablespoons sugar

With a fork, mix all ingredients until well blended. That's all there is to it. (Makes 2 cups.)

HOT BLUEBERRY SAUCE

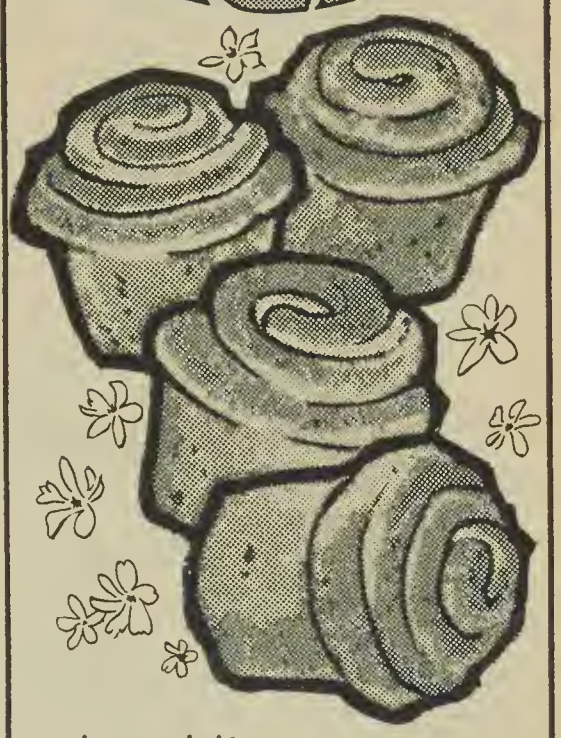
2 cups fresh or frozen blueberries
1/2 cup sugar
1 tablespoon lemon juice
1 teaspoon cornstarch

In a saucepan heat blueberries with sugar, lemon juice, and 1/2 cup water. Bring to a boil and let boil 2 minutes. If it is too watery, let it cook another 4 or 5 minutes. Taste for sugar and lemon (this will depend on tartness of berries). Dissolve cornstarch in 1/2 cup cold water; add to berries and let boil another minute.

Serve hot over cake with Sour Cream Sauce. Put Sour Cream Sauce on the cake first, then the hot blueberries, so they do not soak too much into the sponge cake. To cut cake, use serrated knife dipped in water.



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SALAD-STYLE ROLLS

2 pkgs. Fleischmann's Active Dry Yeast
1¾ cups warm water (105°-115° F.)
½ cup sugar 1 tablespoon salt
3 tablespoons Fleischmann's Margarine
1 pkg. (3-oz.) cream cheese, softened
1 egg 5½ cups unsifted flour
melted Fleischmann's Margarine

Dissolve yeast in warm water. Add sugar, salt, softened margarine, cheese, egg, half the flour: beat until smooth. Stir in rest of flour. Cover tightly. Refrigerate overnight (or up to 5 days).

Roll ⅓ of dough into 18 x 9" oblong. Brush with melted margarine. Sprinkle with ⅓ of selected filling (below). Roll up from long side, as for jelly roll. Seal edges. Cut into 1½" slices. Place cut side up, in greased muffin cups.

Repeat with rest of dough. Cover: let rise in warm draft-free place until doubled, about 1 hour. Bake at 400°F. 12-15 minutes, or until done. Brush with melted margarine. Makes 3 dozen.

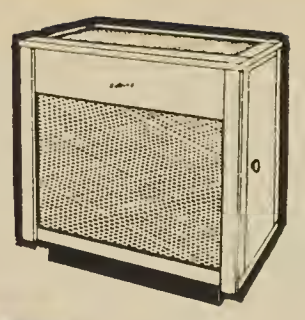
Pick your favorite filling:

⅓ cup each shredded carrots, chopped radishes and scallions * * * ½ cup each chopped parsley and chives * * * ½ cup each shredded carrots and chopped watercress * * * ½ cup each chopped radishes and scallions

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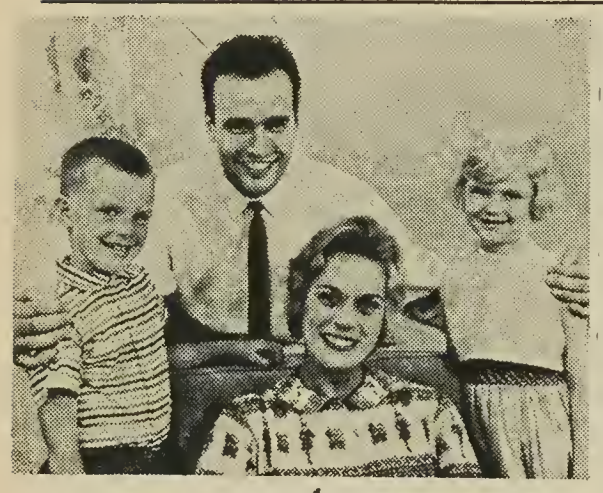
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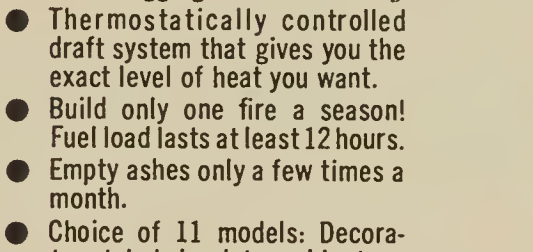
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The AA Clothes Line

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9036. Six-gore dress, shoe-string tie. Printed Pattern Women's Sizes 34-48. Size 36 takes 3-3/4 yards 35-inch fabric. 35 cents.

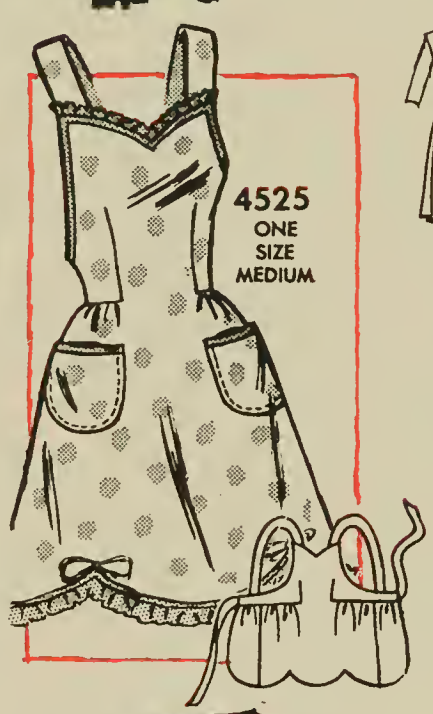










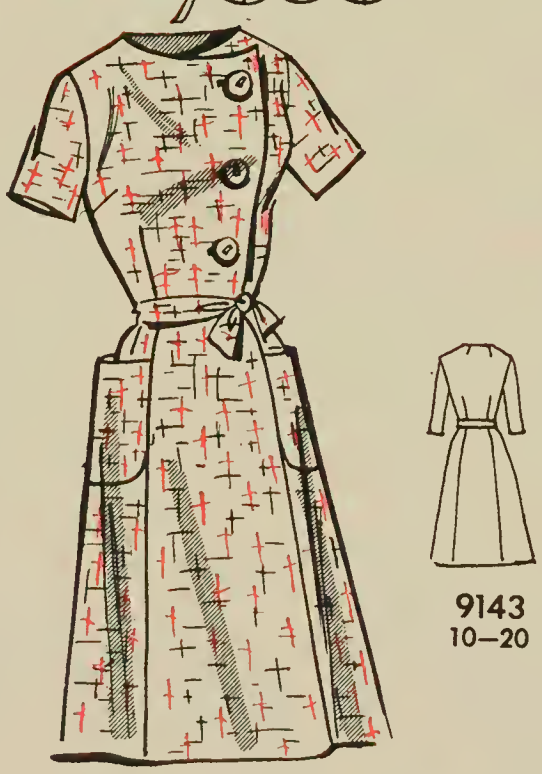




4953. Printed Pattern Misses' Sizes 10-20. Size 16 vest takes 5/8 yard 54-inch; skirt 1-7/8 yards; blouse 1-3/4 yards 35-inch. 35 cents.

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'round the kitchen

with ALBERTA SHACKELTON

NEW Turkey Talk

Today's turkey, younger, more tender and meatier than its ancestors, requires some changes in roasting, to produce the best finished product with the least amount of time and effort. During a Turkey Cookery Seminar conducted by the Poultry and Egg National Board, a dozen turkeys were roasted and judged. All of the home economists attending agreed that today's turkeys do not need the long cooking times of a few years ago, that the open pan roasting method gave the best cooked product, and that a meat thermometer (properly placed) was the best test for doneness.

Here are the new suggested steps for preparing and roasting our modern turkeys:

1. Preheat oven to 325° (slow). This low temperature gives better flavor and appearance, less shrinkage, and less loss of juices.

2. Place the prepared bird, stuffed or unstuffed, breast side up, on a rack at least ½ inch high, in a shallow, open pan. This keeps it out of juices and allows heat to circulate around the bird for even roasting.

3. Brush skin with fat and insert thermometer so that the bulb is in center of thigh muscle or thickest part of the breast meat (bulb should not touch the bone).

4. Place in preheated oven and roast for the approximate time suggested or until thermometer registers 185° (stuffing registers 165° at same time). No searing, water, cover, or basting are required. If desired, however, you may brush or baste occasionally with pan drippings, especially the dry areas. Always roast turkey in one continuous cooking period.

5. When turkey is 2/3 done, cut cord or band of skin at drumsticks, and place a loose covering of aluminum foil over turkey. Placing foil when partially roasted makes it possible for heat to penetrate the bird, quickly cutting down the total cooking time required. The covering keeps heat in, retards excessive browning, and keeps turkey meat moist and juicy.

You will find the following chart helpful in estimating the total roasting time for turkeys of various weights. Remember, however, that differences in individual birds may require a slight increase or decrease in cooking time. Turkey is done if the thickest part of drumstick feels very soft when pressed between fingers.

To cook your turkey to an internal temperature of 185°, in a preheated slow (325) oven, these times are suggested:

6 to 8 pounds	2 to 2½ hours
8 to 12 "	2½ to 3 "
12 to 16 "	3 to 3¾ "
16 to 20 "	3¾ to 4½ "
20 to 24 "	4½ to 5½ "

Stuffing the Holiday Bird

Whether your stuffing base is the familiar bread cubes, rice, potatoes or cornbread, almost any one is improved by the addition of celery, onions, your favorite herbs, mushrooms, parsley or nuts; sausage or oysters; shrimp or scallops. Even fruits, such as chopped cranberries, dried apricots, raisins, or orange juice, are added for flavor variety and to improve the keeping quality by the acidity they add to the mixture.

This advice for safe turkey stuffing procedures comes from the New York State College of Home Economics at Cornell: stuff only ready-to-eat turkeys weighing less than 15 pounds; use a recipe that calls for acid ingredients such as the fruits mentioned above; combine the ingredients just before you stuff and roast the bird (prepare in advance individual ingredients, except bread, and refrigerate); roast the bird as soon as it is stuffed; remove any leftover stuff-

(Continued on page 44)

Recipe of the Month

AUTUMN CRAN-APPLE PIE

Pastry for 2-crust pie
2 1/2 cups cranberries, halved
1 1/2 cups sliced apples
1 1/3 cups sugar
2 tablespoons flour
1 tablespoon grated orange rind
Dash salt
3 tablespoons water
2 tablespoons butter

Line a 9-inch pie pan with pastry. Combine cranberries, apples, and toss with a mixture of the sugar, flour, salt, and orange rind. Place in lined pie tin. Sprinkle water over top and dot with the butter. Roll remainder of the pastry and cut 8 to 10 leaf-shaped pieces with a 2-inch leaf-shaped cookie cutter or cardboard pattern.

To make a cardboard pattern, trace pattern for a leaf about 2 x 2 inches and cut out with scissors. Place pattern on pastry and cut around with a sharp pointed knife. Place pastry leaves around edge of pie and one or more in the center.

Bake in a hot oven (425°) 35 to 45 minutes, or until crust is nicely browned and center slightly bubbly. If desired, a full top crust or lattice crust may be used and decorated at serving time with leaves cut from cheese slices.

A GOLDEN GLOW HOLIDAY

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'round the kitchen . . .

(Continued from page 43)

ing right after the meal and refrigerate both bird and stuffing immediately. Or, you may do what is done in large quantity preparation — roast the bird unstuffed and bake the stuffing separately in a greased, shallow pan.

Garnishes

On the holiday table or buffet, an evenly browned roast turkey resting on a gaily garnished platter, never fails to thrill the family and guests. Choose crisp parsley, watercress, or curly endive for some greenery. Then top your choice with one of the following: small clusters of red and green grapes, frosted or unfrosted; slices of oranges or pineapple; halved pears or peaches filled with cranberry jelly; radish roses and celery curls; glazed onions and candied sweet potatoes sprinkled with slivered almonds. Lastly, add colored paper frills to turkey legs.

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THE KITCHEN BOOKSHELF

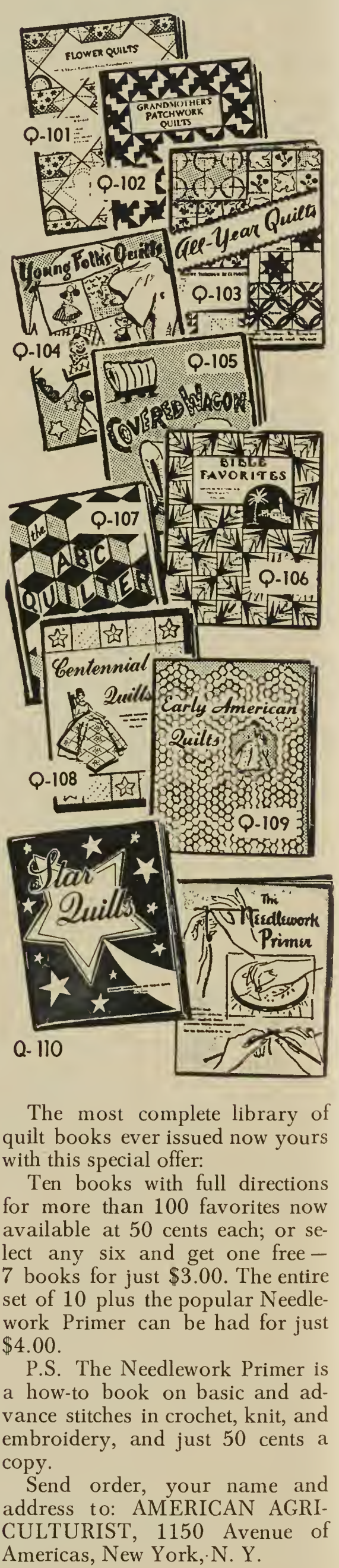
"12 Easy Ways with Omelets" — This leaflet helps you become an omelet artist. Gives recipes for plain, puffy, herb, Swiss, sweet fruit, poultry or meat, Spanish, seafood, and mushroom omelets. Suggestions for a teen-age omelet party are also given. To get a copy, send a self addressed envelope and 10 cents in coin to the Poultry and Egg National Board, Dept. E-12, 8 South Michigan Ave., Chicago, Ill., 60603.

"Your Money and Your Life" — an FDA report (October 1963) on Fakes and Swindles in the Health Field. Included is a list of some of the leading fake treatments and products, including health foods books, reducing products, and false claims for vitamins, also ways to tell whether or not a product is a fake. A single free copy is available from the U.S. Dept. of Health, Education and Welfare, Food and Drug Administration, Washington, D. C., 20204.

"The Nuts Among the Berries" by Ronald M. Seutsch (1961). This book lists debunks, and points out the dangers of many food fads and false beliefs about food. Available in paperback edition for 50 cents at most bookshops or from Ballantine Books, 101 Fifth Ave., New York, N.Y.

"Modern Ways with Roast Turkey" HE 23. Available from Mailing Room, Stone Hall, Cornell University, Ithaca, New York. Single copy free to New York State residents; 10 cents to non residents.

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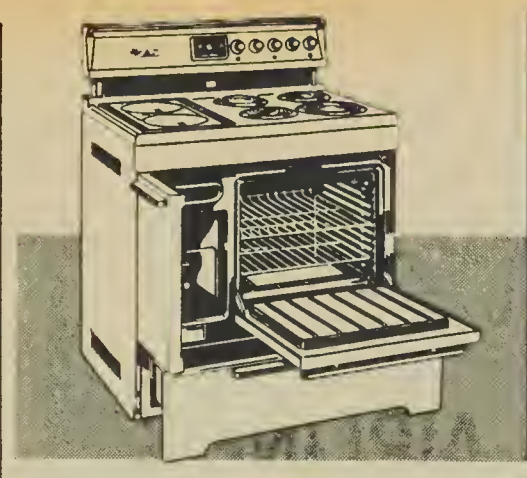
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So if nagging backache makes you feel dragged-out, miserable . . . with restless, sleepless nights ...don't wait...try Doan's Pills...get the same happy relief millions have enjoyed for over 60 years. For convenience, ask for the large size. Get Doan's Pills today!

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Vaccinate with COLORADO THE PEAK OF QUALITY
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9 OUT OF 10 BUY



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with our *"NO TRESPASSING"* signs and you will have the law clearly on your side. Our signs meet legal requirements. They are printed on heavy fabric that withstands wind and weather. They are easy to see and read.

COSTS WITHOUT NAME & ADDRESS	12	$ 1.50
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Please find enclosed $..... for signs.
(Please send check, or money order and add 50 cents for wrapping and postage.)
Send signs to:
Name
R. D. or St. No.
P. O.



For 100 Years!
INSTANT RELIEF FROM AGONY OF ITCHING!
ADAMS' TARLEINE®

due to Eczema, Hemorrhoids, (Itching Piles), Psoriasis, Athletes Foot, Chafing, Scaling and Red Raw Itching Skin.

Temporary Relief can be yours by using **ADAMS TARLEINE**, our 100 year old satisfactory-proven ointment which relieves through healing.

Money cheerfully refunded if not satisfied. Send to Chas. L. Adams Medicine Co., Dept. A, 324 W. Pleasant Ave., P. O. Box 133, Colvin Sta., Syracuse 5, N. Y. Send $1.00.

We are proud of our unsolicited testimonials. Not sold in Drug Stores.

J. S., San Bernardino, Calif.: "I was troubled with a bad leg sore for many years, and at times was unable to walk. After trying many prescriptions and medicines a friend recommended TARLEINE which healed the leg in a very short time, and I have never been bothered since."

W. J. P., Indianapolis, "I have used TARLEINE and found that it is everything you claim it to be. It has cured my piles and I am so thankful to you for putting out such a remedy."



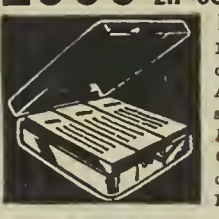
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MONEY FOR YOUR TREASURY
OVER 2,000,000 SUNFLOWER DISH CLOTHS
WERE SOLD IN 1963 BY MEMBERS OF SUNDAY SCHOOLS, LADIES' AIDS, YOUNG PEOPLES' GROUPS, ETC. THEY ENABLE YOU TO EARN MONEY FOR YOUR TREASURY, AND MAKE FRIENDS FOR YOUR ORGANIZATION. SAMPLE FREE TO OFFICIAL.
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Established 1915 Cohoes, N. Y. 12047

A Must On Every Farm



Disk repair in a farm shop. A well-equipped shop is a "must" on every farm.

This fall, Gordon Conklin, editor of American Agriculturist, and I were visiting with a farmer friend about the problem of buying and repairing all of the equipment now necessary to operate a large farm.

To raise the roughage and do the other work necessary to care for 50 head of milch cows and a herd of 25 to 30 young stock, it is necessary for this farmer to have approximately $50,000 worth of equipment.

I started farming on a 40-cow dairy farm fifty years ago with a team of horses and equipment worth not over $500. An older brother would never permit me to operate what little equipment we had with the exception of the one-horse cultivator. The result was that when I started farming for myself — and in more recent years when I was operating a farm — I could not make even the simplest repairs, and always had to hire someone else to do it.

Our farmer friend told Gordon and me emphatically that he, personally, makes all of the repairs on his complicated machinery, and that if he had to hire it done he would soon be out of business.

A successful modern farmer must be a master mechanic, but no matter how good he is he can't keep his machinery going without a well-equipped farm shop; it's a necessity on every modern farm. Our friend told Gordon and me that when he put up his garage he built a large, double one, and partitioned half of it off for a farm shop. He arranged for a stove to keep it comfortable in the winter, made sure it was well lighted, and a pleasant place in which to work.

In equipping that shop, the first thing our friend bought was a welder. A good farm shop ought to have a small forge, a complete assortment of bolts, washers, and nuts (I mean the mechanical ones), a full line of augurs and bits, planes, all kinds of nails, spikes, screws, and a full assortment of wrenches, screw drivers, hammers, at least one vise, a set of jacks, and benches. If possible, there should be a power drill and a power-operated saw. You will think of other tools you will need.

Above all, the shop should be clean and orderly, with a place for every tool and every tool in its place. The first rule should be — *always put a tool back in its place when finished with it.* I have been in shops where it would take the man longer to find the tools he needed than to do the job!

With a well-equipped and ordered shop, a farmer could spend some winter days repairing his machines so as to be all ready when the big farm job started in the spring.

LIFE WAS NO EASIER

Often I hear my older friends say — almost with tears in their eyes — that they wish they could live back in the horse and buggy days when people were happier because life was not so complicated.

Well, life was simpler! But make no mistake, there were just as many problems then as now; they were just different! Life was just as hard as it is today, in many ways harder. Memory has a nice trick of forgetting unpleasant and sad experiences and remembering only the high and happy spots.

On second thought, I don't think any of us would really want to go back to the old days to stay. But come with me and I'll take you back in imagination and bring you back again to **NOW** in my new book — JOURNEY TO DAY BEFORE YESTERDAY.

Every mail brings enthusiastic letters from old and young who have taken this journey back to the Never Never Land via my book. On the trip you will meet people just like those you used to know, and you'll refresh your memory about how people worked, played, and lived.

Letters show also that young people like to take this journey because they love to know how Grandpa and Grandma behaved themselves when they were young and gay.

Maybe this book can solve your Christmas present problem. Just send your check or money order to AMERICAN AGRICULTURIST, Department Book, Savings Bank Building, Ithaca, N. Y. and your copy will be mailed postpaid.

A SUGGESTION

Maybe you women will hate me for saying this, but I know of no better way for a wife to know about the farm business, get interested in it, and help both herself and her husband than by keeping the farm accounts.

There are actually many farmers who don't know whether they are gaining or losing because they keep such poor records — or none at all. Records have always been necessary, but now they are indispensable; farming has become a highly capitalized business. So records are not only necessary for your own guidance, but without them you are almost sure to get into trouble with the government.

What about it, Lady? Can you see how interest in your business will increase if you know what each farm enterprise is doing?

Write to the Department of Agricultural Economics at the New York State College of Agriculture, Ithaca, New York, or to the college in your own state for information on how to keep farm records.

GOING CHESTNUTTING!



One bright October Sunday afternoon in the long ago, an older brother and I climbed the long hill pasture, went through a piece of woods, and came out finally on a plateau on top of the hill where there were several chestnut trees. There had been two or three heavy frosts, the trees were loaded with open burrs, but few of the chestnuts had fallen out. So Brother climbed the tree, I handed up a long pole, and he started to whale the chestnuts out of their burrs. I can shut my eyes and hear the joyous sound yet of those nuts rattling down through the limbs to the ground.

As I bent over to start picking them up — taking plenty of time to eat some as I worked — suddenly something hit me a hard blow between the shoulders. I jumped and let out a great yell. As I straightened up, a fat gray squirrel bounded off my back. Brother had knocked him out of the tree, and I don't know which of us was more scared, the squirrel or me.

All old-timers who were boys on farms fifty years ago will remember the chestnut trees and what fun it was to gather the nuts — and especially to eat them. What a lot was lost from country life when the blight killed them! Not only were the nuts delicious, but the chestnut wood was good for many purposes, including fence posts, railroad ties, and lumber.

Every once in a while some reader reports having or seeing a young chestnut tree in bearing, but the blight always gets them before they get very old.

SHORTEN YOUR MILES

For over 40 years I have talked about the necessity of saving steps at chore time. With one man now doing all the work on many farms, there is more need than ever to study your barn layout and make changes that will save time and work. Studying and planning will often show a few simple changes that will shorten the number of steps. Added up, these can make a surprising number of unnecessary miles traveled in a year. We are all such creatures of habit that we tend to do the same thing the same way year after year, when often that may not be the best way.

The same principle applies to housework. How many unnecessary steps, Lady, do you take to get your work done?

I would be glad to have a short letter from you telling of a way or ways in which you shorten your time and steps. Write to me at 515 North Tioga Street, Ithaca, N. Y.

EASTMAN'S CHESTNUT

A doctor, an engineer, and a politician were arguing over who had the oldest profession.

The doctor said: "Of course medicine is the oldest. Mankind has always had physicians, and they are even mentioned in the Bible."

"That's nothing," said the engineer. "The Good Book tells how the world was created out of chaos, and how could there be any order brought out of chaos without an engineer?"

"Well!" said the politician, "who do you think created chaos?"



ED EASTMAN'S PAGE

AA SERVICE BUREAU

THEY STAYED THREE HOURS

Two salesmen came to our home on August 12. After talking with them we found that one was the same salesman who about three years back sold us our combination storm windows. After that work was completed we signed the completion form; later we noticed the glass wasn't good quality. There were waves in the glass, and in a couple of windows the screens would not slide properly. Our contract said lifetime unconditional guarantee, so we wrote a letter to the office but we never heard from them.

After talking to this salesman he said he would send a man up right away to replace these windows.

On this trip they were selling plastic siding; it is supposed to be better than aluminum. They have a different company name now, and claim to be from a different city.

We made it clear to them that we were not financially able to take on any new payments. They told us they now have a new plan whereby they loan the money to pay off other obligations at 3¼% interest and add an insurance policy; that if the wage earner of the family is out sick or laid off, the insurance makes the payments until said person is working again, and we would not have to pay back.

The salesmen stayed three hours trying to talk us into a contract for plastic siding for the front part of our house (3 sides) halfway up (we plan to lower the roof next year).

The contract said $4,200 . . . $2,000 of which was to be paid in cash to us to pay off our new car. They told us the interest was included in the $4,200, and $200 for insurance for five years. Also, if we gave them the name of anyone they could sell to, our payments would be cut right in half. Of course, this was not in the contract.

We would not sign it; we insisted we had to think it over at least overnight. One of the salesmen got very angry and gathered up his contract and papers. I asked if he was going to fix the windows, and he told me that after we signed the work completion form it relieved them of all responsibility.

After they left we figured up the five years times the payments of $94.24 a month and we were shocked; $5,654.40 appeared nowhere on their contract.

Our reader's story is not new; it is repeated over and over. Often only the company's name or address has changed, as mentioned in the above letter.

We like salesmen; we have them selling American Agriculturist subscriptions. Most salesmen do a good job and are earning an honest living. But there are always some high-pressure ones around and it pays to be alert. The fact that these men offered help with the windows only when the new contract was signed indicated plainly that they never had any intention of doing anything anyway. And, of course, the "referral selling" and the promise that their payments would be cut in half was just so much hogwash.

These subscribers were alert and are to be congratulated that they did not give in to the high-pressure tactics and sign the contract.

It has been said so often, but needs repeating:

(1) Do business with reputable people who can give references of neighbors. Beware of outfits who have changed names often in the recent past.

(2) Always insist on taking time to think over any major transaction of this kind. And try multiplying the monthly payment in terms of years of payment — and see how shocked you are.

(3) Avoid referral selling. It's almost always a con game — and your neighbors may hate you for giving their names to these men in return for promises that usually aren't kept.

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mr. Y. Mostert, Wingdale $ 7.99
(refund on shrubbery)
Mr. Stuart Martindole, Oneonta 19.95
(refund on trop)
Mr. Andrew Kerr, Worwick 40.37
(refund on parts)
Mrs. Edith B. Burleson, Hornell 30.80
(refund of premium)
Mrs. John Mortin, Hogonsburg 25.19
(refund of premium)
Mrs. Julius Thomo, Lowville 8.00
(refund on speciol offer)
Mr. Kenneth Van Acker, Williamson . . 8.98
(refund on uniforms)
Mr. Arthur R. Glover, Shortsville 44.45
(payment for hoy)
Mrs. Graydon Stewort, Perry 14.94
(refund on uniforms)
Mrs. Roymond Merritt, Nineveh 11.89
(refund on plonts)
Mrs. Theodore Mellon, Camden 15.98
(refund on pillows)

PENNSYLVANIA

Mr. Sterling Brace, Wellsboro 240.05
(insuronce settlement)

NEW HAMPSHIRE

Mr. Lee Kidney, Plymouth 53.03
(refund on cor ins.)

FLORIDA

Mrs. Glenn Card, Chipley 207.39
(poyment for gos)

RESPONSE!

In a recent issue of American Agriculturist you published my request for the words to one of my favorite songs "Grandfather's Clock." The response has been beyond expectation. I have received copies of this song from your subscribers in ten states, all of which I appreciate. I have acknowledged receipt of all letters in which name and address of sender were given.

American Agriculturist certainly has a very large circulation. It is my family's favorite magazine; we always read the Service Bureau page first. I hope every farm family subscribes to your magazine.

Many thanks to you for publishing my request and to all the subscribers who kindly took their time to send me the words to the song. — S. J., N. Y.

CAN YOU HELP?

Mrs. Walter Lead, Route 2, Waterloo, N. Y., would like to get the book called "The Covered Wagon" by Zane Grey.

* * *

Mrs. Harry Rowell, West Glover, Vermont, would like the words and music for "I'll Remember You, Love, In My Prayers."

* * *

John Cirkot, 216 Buddington Road, Shelton, Conn., would like to locate a book written by Richard Phelps of East Granby, Conn., over a century ago.

* * *

Mrs. Walter Vincent, Jr., 74 Yawpo Avenue, Oakland, N. J., is interested in buying a bread mixer.

* * *

Clifford Ribble, R.D. 1, Beaver Dams, N. Y., would like the words to the song "Fair Charlotte."

$3275.00 paid to Mrs. Joseph Thompson of Bath, N.Y. by local agent Frank Muller also of Bath.



Mrs. Thompson's husband died of burns received in an explosion at a liquid petroleum gas storage terminal. The plant was located on part of Mr. Thompson's farm which he sold off. He became plant manager and at the same time worked the remainder of the farm raising beef cattle. The Thompsons kept their North American policies renewed a number of years so that the loss of life benefits increased in value.

This is her note of thanks:

I'd like to say thanks for the check in payment of my claim and for the prompt service. I'm awfully glad my husband had the insurance and that we kept up with the premiums.

Sincerely
Mrs. Joseph Thompson

OTHER BENEFITS PAID

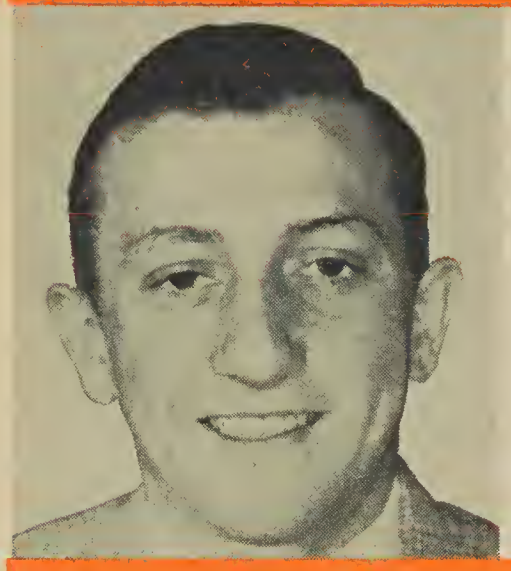
Gerd Remmers, Berns, N.Y. $ 241.43
Auto Acc.—neck & back injury
Anthony Dougherty, Andover, N.Y. 264.28
Fell on cement floor—fractured wrist
Loui Zilli, Glen Aubrey, N.Y. 205.49
Fixing tire chains on tractor—injured finger
Bradley Wickmark, Conewango Val., N.Y. 121.42
Auto Acc.—injured rib, eye
Clifford Anthony, Union Springs, N.Y, ... 386.56
Load of hay fell on insured—injured back
Mary Lou Gibbons, Sherman,N.Y. 286.11
Auto Acc.—concussion
Ervin Slater, Lowman,N.Y. 1270.00
Fell from tree—fractured vertebrae
Marshall J. Shultis, Homer, N.Y. 1096.80
Thrown from truck—Severe back injury
Kazimera Jendrzejewski, Delhi, N.Y 101.70
Crushed arm between cows
Carl Bruning, Akron, N.Y. 338.56
Kicked by cow—injured foot
John A. Fagan, Johnstown, N.Y. 1000.00
Hay elevator collapsed—fractured pelvis
Roy L. Harloff, Batavia, N.Y. 651.38
Auto Acc.—injured face, arm, knee
John VonAhn, Catskill, N.Y. 270.00
Fell on moving wagon—fractured collar bone
James Ward, West Winfield, N.Y. 226.00
Fell in hay elevator—lacerated shin
Oonald Garvin, Watertown, N.Y. 715.24
Fell on bull-dozer—internal injuries
Ethel Finley, Deer River, N.Y. 925.63
Slipped and fell—badly broke arm
Donald Livermore, Madison, N.Y. 493.47
Hit by pitched ball—concussion
Harlan J. Braman, Webster, N.Y. 464.28
Crushed by bull—contusions & muscle strain
Oavid Blencoe, Fort Plain, N.Y. 385.61
Kicked by cow—injured knee and leg
Charles Ounkelberger, Gasport, N.Y. 250.00
Fell from moving tractor—fractured ankle
Herbert Bennett, Sauquoit, N.Y. 1430.00
Hit by car—multiple fractures of leg
Floyd Somes, Memphis, N.Y. 520.00
Thrown from tractor—injured shoulder
Elmer Maslyn, Clifton Springs, N.Y. 1155.00
Fell thru hay chute—brain injury
Lyle P. Halsey, Pulaski, N.Y. 109.42
Slipped in gutter—injured back & leg
Theodore Winsor, Milford, N.Y. 897.15
Playing football—torn ligaments
E. Carl Grende, Schenectady, N.Y. 817.86
Auto acc.—fractured knee
Frederick G. Wilms, West Berne, N.Y. 113.57
Hand truck fell on knee—bruises, fractured ankle
Edna F. Strong, Alpine, N.Y. $ 200.00
Fell—fractured hip
Louis Stilwell, Interlaken, N.Y. 521.00
Fell from hay mow—fractured vertebrae
Robert Carl, Troupsburg, N.Y. 473.03
Chain saw jumped—laceration shoulder
Henry Stelzer, Peconic, N.Y. 170.00
Boat blew up—fracture & abrasion of hand
Clinton Tompkins, Liberty, N.Y. 1394.95
Horse tripped & fell on insured—injured back
Raymond Redsicker, Spencer, N.Y. 1263.96
Slipped & fell -injured back
Beverly Monk, Richford, N.Y. 935.83
Stepped on nail—injured foot & leg
Charles Oaks, Trumansburg, N.Y. 513.79
Fractured ankle
Charles Herdman, Kingston, N.Y. 790.46
Fell off roof—concussion, fractured wrists
Robert Fuller, Hudson Falls, N.Y. 118.60
Using power saw—lacerated fingers
Paul Welch, Clyde, N.Y. 398.50
Hit by mold—fractured knee
Herman Young, Palmyra, N.Y. 508.74
Pinned between trucks -injured back
Delbert L. Woodard, Jr., Dundee, N.Y. 251.53
Auto Acc.—whiplash injury
Hilda Douma, Newton, N.J. 548.88
Slipped getting out of tub—injured back
H. Lester Black, Swedesboro, N.J. 1700.00
Tractor Acc.—injured pelvic region
Thomas Iannaco, Waterford, N.J. 1034.97
Slipped off sprayer—injured back
William DiMeo, Hammonton, N.J. 914.03
Hunting deer—shot in both legs
Sylvia Englestein, Jackson, N.Y. 775.00
Auto Acc.—fractures and severe bruises
Paul Rieppel, Mansfield, Pa. 122.07
Struck by lightning
Ruth Savko, Columbus, Pa. 426.43
Auto Acc.—injured neck
Frank Kuljnyck, Hebron, Conn. 120.00
Riding in taxi—whiplash injury
Kenneth North, Greenvield, Mass. 159.48
Fell over jack—cut scalp, Concussion
Arthur R. Strippe, Whately, Mass. 193.56
Auto Acc.—whiplash injury
Charles Payeur, Livermore Falls, Me. 242.14
Trampled by bull—fractured ankle
Walter J. Scott, Madison, Me. 786.30
Fell off truck—infected foot
Lionel Morin, Dover, N.H. 135.28
Fell—fractured rib & injured shoulder
Roger L. Noble, Benson, Vt. 355.00
Kicked by cow—fractured leg & ankle

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NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)

THE NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK

NEW Maes USERS REPORT



Paul Mader,
Bloomingdale, Ohio, Reports:

"Your Maes inflations have practically eliminated our mastitis problems. The cows really enjoy being milked with these soft pliable inflations." Mr. Mader milks his herd of 32 cows with Maes style D narrow-bore for DeLaval 06 shells.



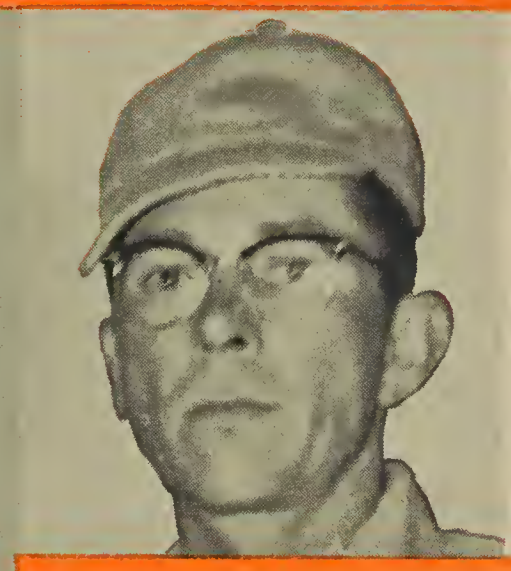
Thomas Mathwig,
Fall Creek, Wisc., Reports:

"Your inflations save us 15 minutes per milking. They are softer and more flexible than the others we were using. Our cows gave no trouble in adjusting to Maes inflations." Mr. Mathwig uses Maes style UO narrow-bore for larger Universal shells.



Ralph Meikle,
Smithfield, Utah, Reports:

"We're milking faster with Maes style CHC narrow-bore for Choreboy — they do everything you said they would." Mr. Meikle milks 125 Holsteins.



Stanley Iciek,
Hopkins, Michigan, Reports:

"The first milking I used Maes I saved 20 minutes' time on 29 cows. My cows seem more at ease with Maes. Also, they don't creep up and there is less noticeable irritation of the teats."



Earl Smith,
Barnesville, Ohio, Reports:

"In thirty years of milking, the Maes inflations are the best I've ever used. They milk much faster and easier." Mr. Smith uses Maes style U (medium-bore) for larger Universal shells.



M. R. Simpson, Deer Park, Washington, Reports:

"We like your narrow-bore inflations very much — they stay on a lot better than the others. The cows milk out faster." Mr. Simpson uses Maes style UO narrow-bore for larger Universal shells.

VISIT YOUR NEAREST Maes DEALER

OR WRITE TO: MAES INCORPORATED, DEPT. AA114 , HOLLAND, MICHIGAN

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ADDISON—Addison Agway Service, Inc.
AFTON—Lester Cutting
ALBION—Ralston Purina Co.
ALMOND—McIntosh Garage
ALTAMONT—Howard L. Gage
APULIA STATION—Neal A. Mowry
ARCADE—Ralston Purina Co.
ARKPORT—Killbury Feed Service
ATTICA CENTER—Gephart & Shaw
AVOCA—Kiefer Milling Co.
AVON—Welch Dairy Supply
BALLSTON SPA—A. L. Pettit & Son Equip.
BARNEVELD—Baker's Sales & Service
BELLEVILLE—Bob D. Henry Corp.
BELLEVILLE—Herron Farm Supply
BERKSHIRE—Lynch's Store
BINGHAMTON—Checkerboard Feed Store
BOUCKVILLE—Bouckville Feed Mill
CALLICOON—Agway, Inc.
Delaware Valley Service
CANANDAIGUA—Joe Valvano's Dairy Supply
CANASTOTA—Canostota Agway Service
CANDOR—Ward & Van Scoy's
CANISTEO—Canisteo Agway
CANTON—Wight & Patterson
CATO—Robert Dudley
CAZENOVIA—Cazenovia Feed & Farm Supply
CAZENOVIA—J. C. Lucas & Sons
CHAMPLAIN—Bechard's Farm Equipment
CHAFFEE—John Sixt & Co., Inc.
CHAFFEE—Wirthmore Stores
CHASE MILLS—Samuel E. Huribut
CHATHAM—Wirthmore Store
CHITTENANGO—Brown's Service
CHITTENANGO STATION—Sanford B. Hatch
CHURCHVILLE—Churchville Agway Service
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COHOCTON—Kiefer Milling Co.
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Cortland Co-op Agway Service, Inc.
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DARIEN CENTER—
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DEPOSIT—Steve W. Zaczek
DERUYTER—Beacon Feed Co.
DRYDEN—Ray L. Dedrick
DUNDEE—Eugene Shelford
DUNKIRK—W. D. Van Scoter
EAGLE BRIDGE—Byars Agway Store
EAST AURORA—R. S. Moore G.L.F.
EAST DURHAM—Dean's Catskill Valley Mills
EDWARDS—Lumley Feed & Coal
ELBA—Guy H. Smith
ELLICOTTVILLE—Ellicottville Agway Service
ELNORA—George T. Smith & Son
FABIUS—Fabius Hardware
FALCONER—Zahm & Matson
FILLMORE—Fillmore Feed Service
FORT ANN—
Adirondack Farmers Exchange, Inc.
FORT EDWARD—
Adirondack Farmers Co-op Exchange, Inc.
FORT PLAIN—Duesler's Garage
FRANKFORT—Urgo's Service
FRANKLIN—Matteson Feed & Supply Co.
FREEDOM—N. A. Phillippi Co.
FULTONVILLE—Beacon Grain Store
GALWAY—Clarence C. McChesney & Sons
GENEVA—E. E. Miller & Son
GLOVERSVILLE—
Herbert J. Fairbanks, Harry McIntosh
GOUVERNEUR—Gouverneur Co-op Ass'n.
GRAND GORGE—Becker Feed Store
GREENE—Maxon Feed Co.
GREENWICH—
Greenwich Feed & Farm Supply
GROTON—Groton Feed Co.
HAMMOND—Donald E. Robinson
HANCOCK—Ralston Purina Feedstore
HOMER—Homer Agway Service
HOMER—Wheat Brothers
HOOSICK FALLS—Farmer's Chemical Corp.
HORNELL—Merlin R. Burns
HORTONVILLE—
Hortonville Grange Co-op Ass'n.
HUDSON—Kell Farm Supply, Inc.
INTERLAKEN—Daily Brothers
IONIA—Bill's Shop
JAMESTOWN—Haggerty & Anderson
JEFFERSON—Stryker Brothers
LAFARGEVILLE—Glenn Johndrow
LAFAYETTE—Palmer's Feed Mill
LANCASTER—Don Beck
LEONARDSVILLE—S. I. Shatzel
LEROY—Crocker's Agway Service
LIMERICK—King's General Store
LIMERICK—Roe's Feed Mill
LIVINGSTON MANOR—
Liberty Tractor Co., Inc.
LOWVILLE—Dr. Herbert R. Marks
LOWVILLE—Samuel Roes & Sons
LYONS FALLS—Lyons Falls Farmers Co-op
MARCELLUS—Clifford W. Dorchester's Store
MARILLA—R. S. Moore Agway
MEDINA—Wayne L. Heyden
MIDDLEBURG—River Implement Co., Inc.
MIDDLEPORT—B. Ressegule Feeds
MILLERTON—Wirthmore Stores
MOIRA—Henry L. Esseltine
MONTGOMERY—Helstrom Feed Service
MORAVIA—Moravia Agway
NEWARK—Wayne County Feed Store
NEW BERLIN—Valley Supply Co.
NEWFIELD—
Tompkins Co. Farmers Union Co-op, Inc.
NEWPORT—Ralph C. Dedrick
NEW WOODSTOCK—
New Woodstock Milling Corp.
NICHOLS—Nichols Agway Service
NORTH BANGOR—Red Rose Feed
NORTH BLENHEIM—North Blenheim Cry.
NORTH JAVA—Java Farm Supply
NORWICH—Norwich Farm Implement Co.
OAK HILL—Dean's Catskill Valley Mills
ONEIDA—Oneida Milling Co.
ONEIDA—Harry L. Van Horn
ONEONTA—Mrs. M. A. Groff
ORISKANY FALLS—
Peters Feed Store
OTEGO—Susquehanna Valley Mills
OWEGO— Arthur Hollenbeck & Son
PALESTINE BRIDGE—Wirthmore Store
PENN YAN—Strong Feed Store
PERRY—Roger Paddock
PHILADELPHIA—E. L. Mosher & Son
PINE BUSH—
Empire State Farm. & Vet Supply
PORT BYRON—
Burke's Hardware & Garage
RICHMONDVILLE—Makely's Supply Store
ROME—George B. Harvey Feed Store
ROXBURY—Lutz Feed Co. of Roxbury
RUSHFORD—Oliver J. Williams
SALAMANCA—Ellicottville Agway Service
SALEM—George A. Jolly
SANBORN—Sanborn Milling Co.
SCHOHARIE—Rickard Feed Co., Inc.
SCHUYLERVILLE—Schuyler Feed Store
SCIPIO CENTER—Krueger Feed & Supply Co.
SHARON SPRINGS—Lipe Feed Co., Inc.
SHERMAN—Farmers Mill, Inc.
SKANEATELES—
Bobbett Implement & Tractor
SOUTH DAYTON—Thorp & Mann Feed Co.
SPENCER—Spencer Co-op Agway Service
SPENCER—Spencer Co-op Society, Inc.
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ST. JOHNSVILLE—Valley Equipment Co.
STAFFORD—Francis W. Coward
STAMFORD—A. W. Demarest & Sons
TROY—E. J. Goyer & Son
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WALDEN—Wirthmore Stores
WALKER—Walker Produce
WALTON—R. A. Gilmore
WALWORTH—Duell's Garden & Feed Store
WARSAW—
Cooper, Hemenway & Rowley Agway
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WATERTOWN—L. M. Allen Dairy Supply
WATERVILLE—P W. Lewis Co.
WATKINS GLEN—Florlat Dairy
WATKINS GLEN—Donald K. Thompson
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WEST EDMESTON—Roberts Farm Supply
WESTFORD—L. S. Huntington & Sons, Inc.
WESTTOWN—Demberg Bros.
WEST WINFIELD—Schoonmaker's Feed Co.
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WILLIAMSON—Farmers Feed and Grain Co.
WOODVILLE—Roe's Feed Mill

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NASSAU—Thomas Best & Son, Inc.

MARYLAND

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CHESTERTOWN—Kent Co-operative, Inc.
CUMBERLAND—J. Marshall Porter
EASTON—Ewing Farm Implement & Hardware
FREDERICK—Farmers Supply Co.
GRANTSVILLE—Roop & Sons
HAGERSTOWN—Farm Bureau Co-op
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MOUNTAIN LAKE PARK—
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ELMER—Alvin C. Crispin
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MULLICA HILL—W. A. Jones & Son
WASHINGTON—Frank Rymon & Sons

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CAMBRIDGE SPRINGS——Turner's Mill, Inc.
CANTON—Woods Store
CANTON—Wynne's Garage
COCHRANTON—Cochranton Co-op Ass'n.
COLUMBUS—Columbus Milling Co.
COUDERSPORT—Huntington's
EAST SMITHFIELD—Kennedy's Farm Store
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TROY—Austin D. Wallace
ULSTER—Tuttle Hardware
UNION CITY—Union City Co-op Ass'n

DECEMBER 1964

American Agriculturist

and the.....

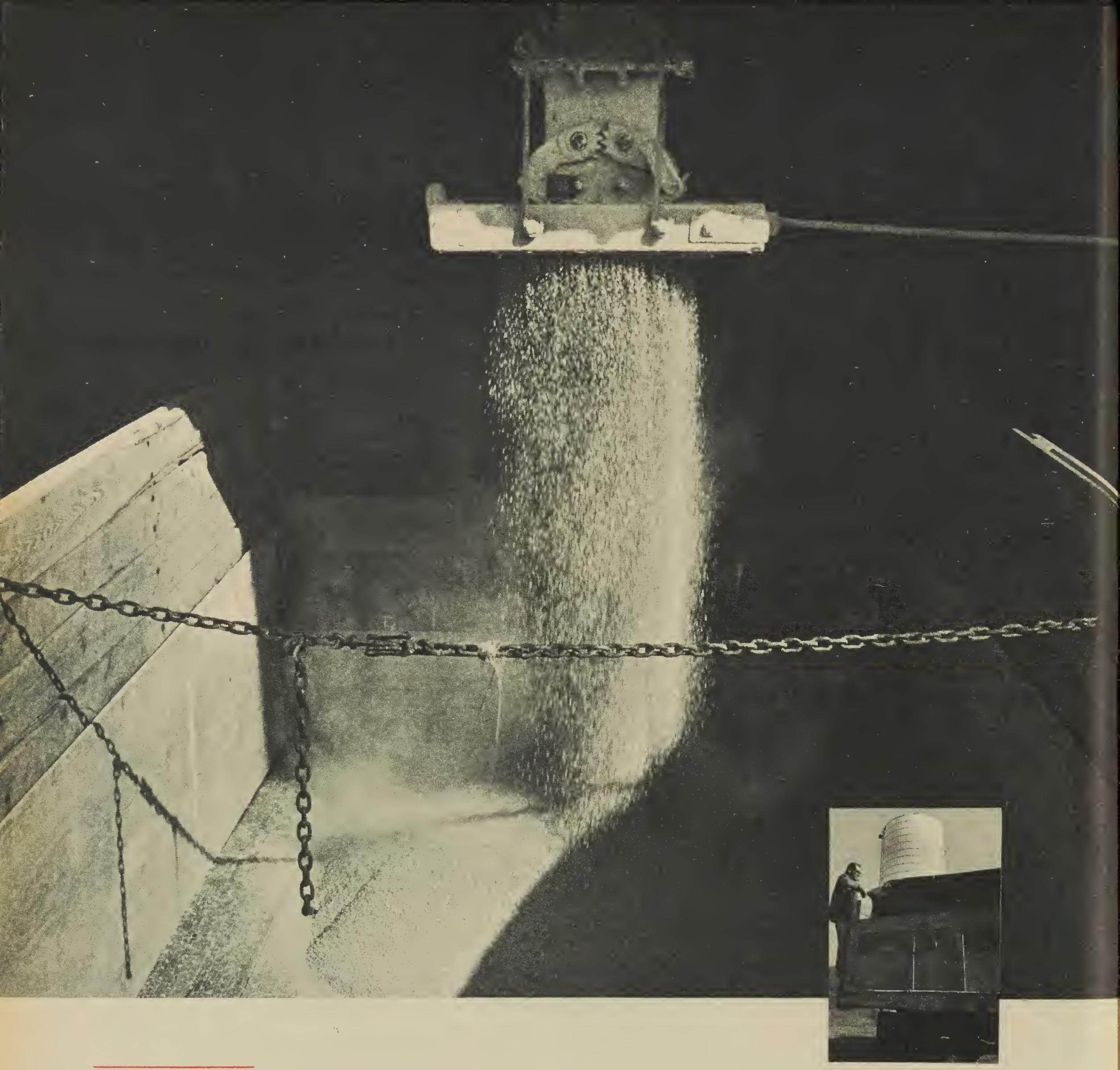
RURAL NEW YORKER

First Combined Issue

DECEMBER 1964

- See announcements by A.J. Hall, Publisher of American Agriculturist, and by William E. Berghold, Publisher of the Rural New Yorker.
- Ideas for the Holiday Season
- Report from Gayway Farm
- Latest Information for the Farm and Home

...for the Northeast Farmer



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IF you receive two copies of the combined "American Agriculturist and the Rural New Yorker,"

LET US KNOW

In correlating the names of subscribers to both papers we undoubtedly made some errors — especially if the names or initials were not exactly the same — or if one paper was in the husband's name and the other in the wife's.

If you get two copies, please send in both labels — let us know the correct way to send one paper to you each month.

We will add together the unexpired terms on each. You will get one copy each month but for a longer time.

American Agriculturist and the Rural New Yorker (Subscription Dept.) 10 No. Cherry St., Poughkeepsie, N. Y.

American Agriculturist and the RURAL NEW YORKER

FOR THE NORTHEAST FARMER

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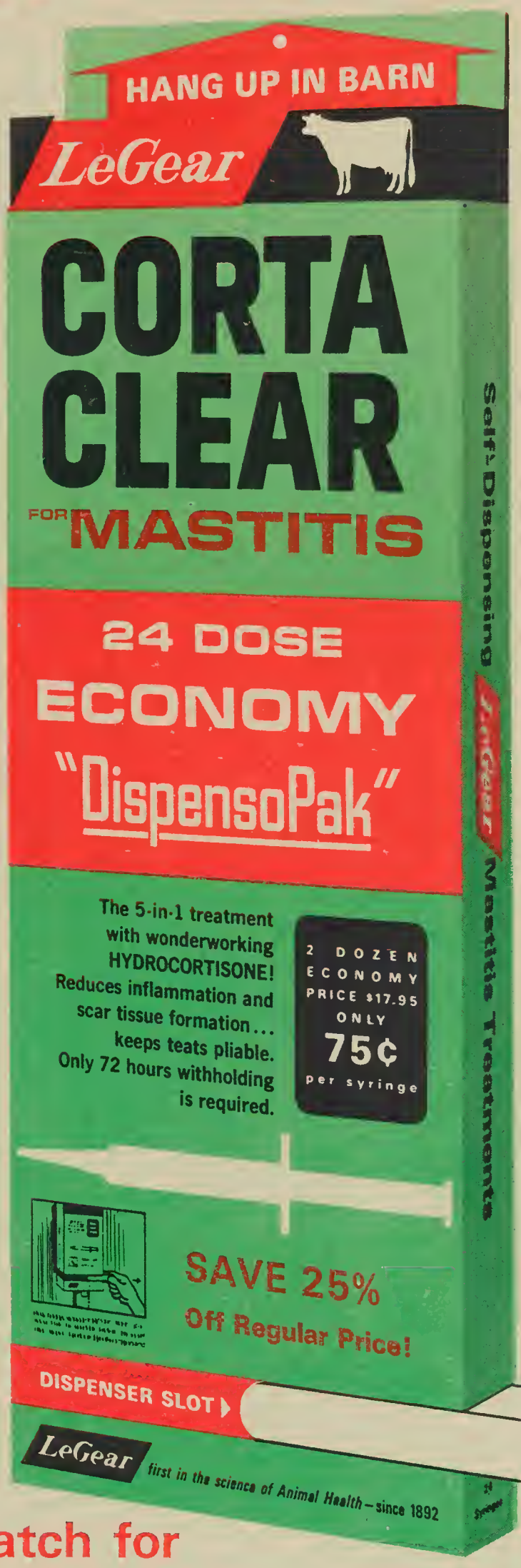
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OUR COVER

On page 5, A. J. Hall and William F. Berghold tell about the joining together of the American Agriculturist and the Rural New Yorker. It is a positive step forward in providing better service to rural people in the Northeast.

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EDITORIALS

by GORDON CONKLIN



AGRICULTURE PHASED OUT

Just finished reading a beautifully printed and illustrated publication entitled "Change, Challenge, Response" prepared by the Office of Regional Development at Albany. It is a blueprint for State and regional planning in New York, looking ahead to the year 2020 (does this imply 20/20 vision?).

Now, this report contains a wealth of visual and narrative information about past trends, present situation, and predicted changes. It attempts to blueprint the planning needed to accommodate the homes . . . and the aspirations . . . of the thirty million people expected to be living in the Empire State by the 21st Century.

Conspicuous by their absence are any but passing references to agriculture. The report does state that, "Prime agricultural land and natural scenic features will be protected in regional plans." More typical, however, of its approach to farming is the phrase, "Leisure and recreation activities are transforming rural and mountain areas." I am left with the impression that farming is to be retained to relieve the billboard eyestrain of passing urban motorists, but that agriculture is not considered sufficiently important to warrant inclusion as a dynamic industry.

A large map of the State sets forth the culmination of developments recommended by the planners. It shows nothing designated as agricultural lands, but does have a lot of acres labeled "conservation areas," further subdivided into "protected open lands" and "forest-recreation areas." From cover to cover it is primarily urban-oriented; perhaps the key to why can be found in a table on page 24 of the report showing what a tiny portion of the State's population is engaged in farming.

The small proportion of the total population who operate farms own most of the land involved in upstate development plans; they produce annually food products worth a billion dollars, and purchase production items to the tune of hundreds of millions of dollars annually. Farmers and their agri-business associates are vitally concerned about water for irrigation, open country zoning regulations, disposal of animal wastes, assessment and taxation policies, condemnation of private land for public use, and many other things inevitably involved in putting long-range development plans into practice.

The shrinking number of people engaged in the State's billion-dollar-a-year business of farming denotes progress rather than a "dying industry"; agriculture has done such a good job of using its resources that it tends to be forgotten amidst the seemingly endless plenty pouring forth from its mechanized cornucopia. But agriculture's efficiency . . . and those bulging supermarkets we're all so used to . . . can be hamstrung by ignoring agriculture's interests and its foundation role in supporting an industrial economy.

I am not going to throw any bricks at a job conscientiously and skillfully . . . albeit incompletely . . . done by a group of public servants and private consultants, all with special training in their respective fields. But I am asking why agriculture was not adequately represented among the group responsible for this report.

This should be corrected in order to add needed agricultural perspective to future activities of the Office of Regional Development.

This representation for agriculture should also extend into local and regional groups charged with the responsibility of area planning and development. Rural New York needs to do some planning for rural New York; if rural people completely pass the planning ball to professional planners by default, the results will not make farmers and their neighbors very happy.

You, my friend, have a big stake in land use plans wherever you live in the Northeast. There is nothing sacred about agriculture that dictates its preservation in some particular locality irrespective of the needs of urban people, or the opportunities for employment that may offer more income than farming. But in every major decision, seeing the total picture is awfully important.

Do your level best on your own behalf . . . and on behalf of your children and grandchildren . . . to do a good job in your own area or community, to learn about and participate intelligently in the changes sweeping the landscape of the Northeast. Agriculture must have . . . for the benefit of farmers and non-farmers alike . . . a voice in shaping the nature of those changes.

I'M FOR THAT

If you're proposing a farm subsidy program just to fatten up the bankrolls of cotton and wheat farmers in the South and West, I'm opposed. But if you're talking about "a program to preserve the family farm by preventing undue price fluctuation," I'm for that.

If you're promoting a pork-barrel deal so some politician can pay off his commitments to those who voted for him back home, I'm dead-set against that. But if you're suggesting "essential straightening and dredging of Panther Creek" so my boat can go all the way to my upstream hunting lodge, that's a good idea.

If you're trying to sell me the idea that all this hustle and lather is needed to get a man to the moon, go peddle your papers elsewhere. But if you're talking about "enlarging world respect for America by maintaining space leadership over the Russians," I'm for that.

If you're talking about the federal deficit that causes endless inflation and denotes fiscal irresponsibility, I'm opposed. But if you're suggesting federal spending policy that "promotes a more dynamic economy and a growing Gross National Product," I'm for that.

If you're talking about the bickering and back-biting that goes on between some farm cooperatives in the Northeast, I confess disappointment. But if you mean the "healthy competition between farm organizations that keeps everyone on their toes," I'm for that.

MILK STANDARDIZATION

New York State now stands alone in the nation when it comes to prohibiting milk standardization . . . the changing of butterfat content in milk and still selling it as milk. New Jersey only recently joined the ranks of those states allowing this practice.

The Garden State thus joins Pennsylvania in legalizing additions to or subtractions from butterfat before milk is bottled. The fact that Federal Order 2 applies to these two states as well as to New York introduces problems, because it's tough to have a ball game where different players are following different rules. In other words, state regulations on standardization differ in an area regulated by one milk marketing order. This opens up the possibilities of problems in administration of the Order; the drafting of laws concerning standardization must be done carefully. Well done, such laws offer consumers a wider range of products that can lead to greater total consumption. Some people want low-fat milk, some want the "good old-fashioned" milk they've always known.

One of the key provisions is labeling . . . being sure people know which product they're getting so that 3 percent fat milk doesn't masquerade as 3.5 percent fat milk. After all, some people have bought "high test" gasoline for years; others want "regular." But in gasoline, both grades are unmistakably marked.

I'm in favor of allowing milk standardization in New York State . . . with laws requiring clear labeling of fat content so people know what they're getting. It will give consumers more alternatives to choose from at the dairy counter . . . and I'd rather see the dieters buy some low-fat milk than none at all. Besides, some of the turmoil that confuses milk marketing across state lines would be cleared up.

It's time the Empire State caught up with the rest of the nation on this one!

POLITICS VS. FARMING

Heard a speaker the other day who started me thinking (not an easy task, by the way). He commented that political solutions to farm problems are always hamstrung by the fact that farming is a long-term business, while politics is by nature a short-term popularity contest.

Farmers develop bloodlines in livestock over the years, make expansion plans that may take decades to fully realize, and think in management terms of the long haul. Politicians, however, must focus their attention on the next time they lay their jobs on the scale at the voting machine. This doesn't necessarily imply any dishonesty — or even insincerity — but does indicate the dilemma faced by any elected official in trying to look to the future as a statesman, and at the same time look to the moment as a vote-getter.

SWEAT IS THE ANSWER

The average Irishman (on the ould sod, that is) stows away more than 40 pounds of butter each year, while the average person in the United States nibbles down only 8 pounds. Yet the Irish have less heart disease than Americans. If all those broadsides about cholesterol being delivered by the American Heart Association have any validity, how come the "wearers of the green" aren't dropping like flies?

Researchers at the University of Wisconsin took a look at this question, and found that there is no difference between Irish and American butter in the amounts and types of fatty acids present. What they do think is different is that the Irish get a lot more physical exercise than most Americans.

The "Irish Brothers" study, comparing Irishmen of Boston with their blood brothers still in Ireland, indicates that this difference in physical exercise is primarily responsible for the lower blood cholesterol and lighter weight of the brothers living in the Emerald Isle — even though they consume more calories per day and eat a lot more butter.

No escaping that dismal advice, "He who doesn't work (very hard) shouldn't eat (very much)!"

FROM ALL OF US

May you enjoy this holiday season more than ever before . . . watching the children unwrap their presents, trimming the tree, and eating a bit too much. And may you hear again that haunting refrain sung by the heavenly hosts so long ago.

Merry Christmas . . . and A Joyous New Year!

American Agriculturist, December, 1964

Publishers Agree:

One For Agriculture

A Statement to Readers by A. James Hall and William F. Berghold.

As indicated in the new masthead in this issue, two of the oldest and most respected farm papers in the Nation have been combined. American Agriculturist has served Northeast farmers for 122 years—The Rural New Yorker for 114 years. Each publication has earned a reputation for its integrity and unswerving dedication to agriculture.

The rivalry of both publications is legend.

For more than a century each has fought the other, both for readers and for advertisers. Though there was often sharp disagreement in editorial opinion, both publications stood firm (sometimes side by side) for what each believed to be in the best interests of Northeast farm families. The list of editors and writers who won high acclaim in the farm field included such men as Herbert Collingwood, John Dillon and "Prof" Duck for The Rural New Yorker, and for the past 15 years, William Berghold as its editor and publisher. American Agriculturist had men equally outstanding—men like Ed Eastman, H. E. Babcock, Hugh Cosline and, more recently, Gordon Conklin.



A. James Hall

Although often on different sides of the fence, none ever straddled it. Each, in the pages of one paper or the other, made great contributions to farming in our area. They had the experience and courage, when opinion was needed, to set theirs down in printed words for all to see.

The economics of publishing and recognition of the trend to fewer but larger farms were the principal factors leading to the decision to combine both publications. It was agreed that American Agriculturist acquire control and management of The Rural New Yorker, and that the names of both publications be used in the new title.



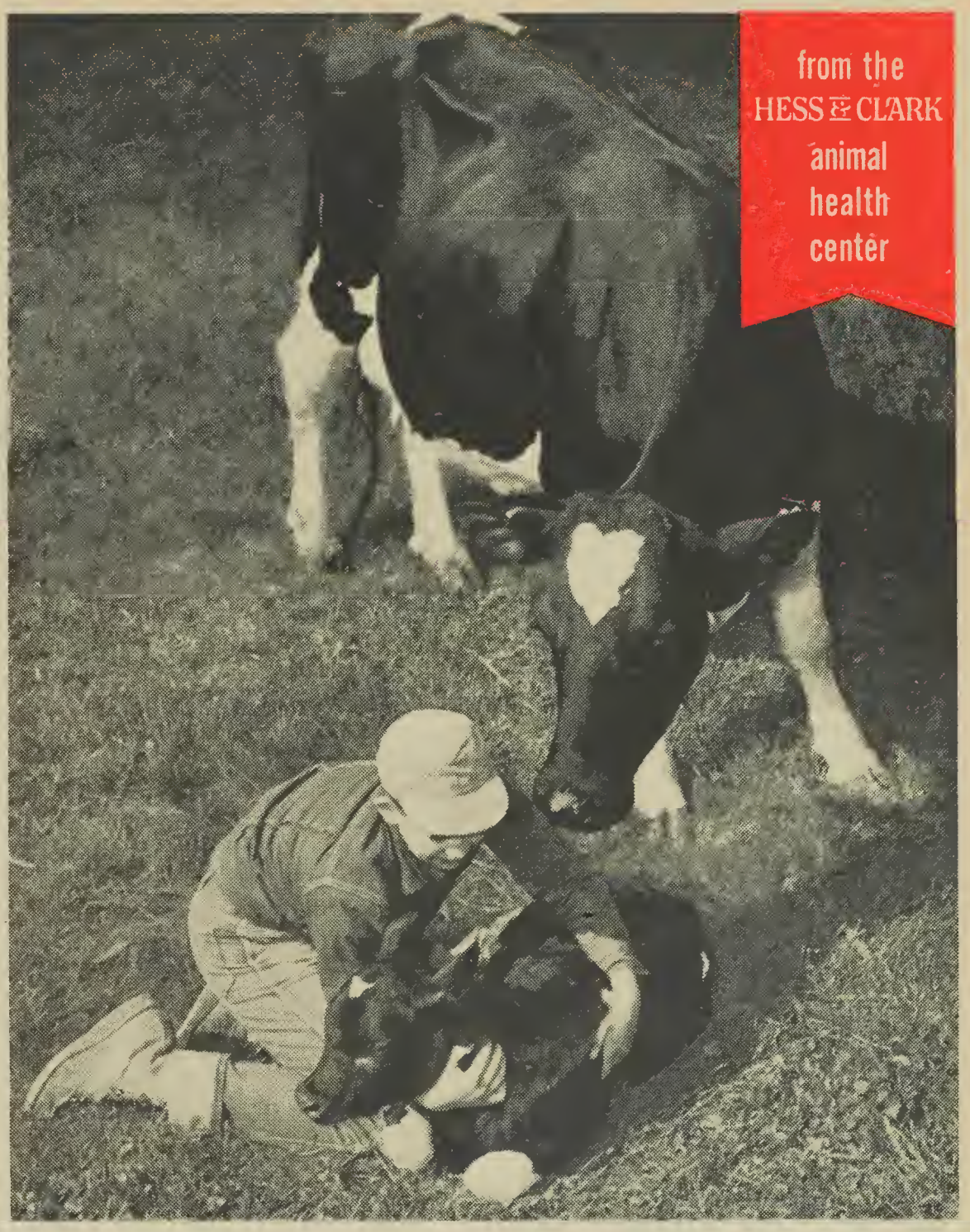
William F. Berghold

Now one farm magazine is reaching and serving all the subscribers of both American Agriculturist and The Rural New Yorker. All subscriptions of both publications will be fulfilled. The subscriptions of the readers getting both papers will be extended to cover a period equal to the unexpired terms of both.

Combining these two outstanding publications is an historic step which should accrue to the benefit of agriculture in general, and to the readers of both publications in particular.

The new "American Agriculturist and The Rural New Yorker" will serve in the best tradition of both publications, and the staff will devote itself unstintingly to the ever-present task of safeguarding and improving the welfare of agriculture in the Northeast.

A. James Hall William F. Berghold



FULL PRODUCTION AHEAD

Pen-FZ protects dry cows against mastitis flare-ups at freshening

Cows with a history of mastitis are the ones likely to have another flare-up at freshening time. But many dairymen now use a sensible, effective way to protect these cows. They use double-action Pen-FZ at the time cows are dried off. A tube or syringe of Pen-FZ is injected into each infected quarter and massaged well up into the udder. Then the treated quarters are not milked out until the cow freshens.

Because Pen-FZ combines one of the unique nitrofurans, nitrofurazone, with penicillin, it makes a double attack on the bacteria that cause most mastitis. It works, cow after cow, year after year. It has an especially good record when used in the dry cow treatment to protect against freshening flare-ups.

Try this tested idea of treating dry cows that have a history of mastitis infections. Use Pen-FZ. See for yourself how effectively it works.

Pen-FZ

... with a germ-killing nitrofuran

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MILK FROM COWS TREATED WITH PEN-FZ FOR MASTITIS SHOULD NOT BE USED FOR FOOD DURING TREATMENT AND FOR AT LEAST 96 HOURS (8 MILKINGS) AFTER THE LAST TREATMENT



Gene Quintin of Morris, N. Y.

HOME-GROWN FEED

Dairymen have one problem in common, to cut the cost of producing a hundred pounds of milk.

I have a one-man farm, hiring only summer help. I figure one man can take care of thirty to forty cows, but if he tries to handle more they will be neglected somewhere along the line.

I didn't want to go to a two-man farm (though I have barn room for more cows) so I decided to cut costs by growing more feed, especially more corn for grain. One advantage to the milk industry is that this step won't be adding more milk to the surplus!

Last year I husked a little less than two acres, and figure I saved around $380 on my feed bill. Incidentally, I feed around two tons of grain per cow per year. This year after the silos were filled I had considerably more acres for grain than I had last year.

I haven't stepped up corn acreage much. By using 10 to 12 tons of manure, 200 lbs. of urea, and 350 to 400 lbs. of 10-20-20 fertilizer, yield per acre was increased substantially. I've grown corn on the same ground for five years.

Milk production costs per hundredweight have also been lowered by a production increase of around 500 pounds per cow per year. Back in '48, the herd average was around 13,000 lbs.; last year it was right around 16,000. — **Gene Quintin, Morris, N. Y.**

SUMMER FEEDING

We recently put up a Harvestore, largely to store feed for summer use. We plan to store haylage, green oats or corn, depending on the season and our needs. One thing we like about this silo is the ability to fill partly or entirely at any time, and still continue feeding. We also have an older silo that holds 200 tons.

Our cows are in stanchions, but we plan automatic bunk feeding in summer, and will feed silage outside in the bunk once a day in winter.

Our work force includes my brother Phil, and my Dad. Dad has 1100 hens, and grows some vegetables for a retail route.

With three single units, Phil and I milk our 50 cows in an hour-and-a-half. We have a bulk tank and a transfer system. — **Jack Huestis, Ticonderoga, N. Y.**



Jack (kneeling) and Phil Huestis. With three single units they milk 50 cows in 90 minutes.

BREEDERS' INSTITUTES

The twelfth annual Breeders' Institute program sponsored by the New York Holstein-Friesian Association is scheduled for seven meetings across the State during the week of December 7 — 11, 1964.

The program is designed to interest dairymen of every breed affiliation. This year's panel consists of Dr. Lester O. Gilmore, Associate Chairman, Department of Dairy Science, Ohio Agricultural Experiment Station; Allen N. Crissey, retired fieldman for the Holstein-Friesian Association of America in the New England — New Jersey territory; and Nicholas H. Kolk, prominent Orange County Registered Holstein breeder and immediate past-President of the New York Holstein-Friesian Association. Professor Raymond Albrectsen of Cornell is again chairman of the committee and moderator of the panel.

The program will cover many subjects: type — its utility and value; genetically speaking — what we need to know about dairy cattle; how to build and breed a top registered herd; and other subjects of economic importance to dairymen.

The schedule for the meetings across the Empire State is as follows:

December 7 — Schaghticoke Senior High Gym, 8 p.m.

December 8 — Norwich Grange Hall, 1 p.m.

December 8 — Delhi Agricultural & Technical Institute, 7:30 p.m.

December 9 — LaFayette High School, 7:30 p.m.

December 10 — Linwood Grange Hall, 1 p.m.

December 10 — Alfred Agricultural & Technical Institute, 7:30 p.m.

December 11 — Pine Valley Central School (between Cherry Creek & South Dayton), 1 p.m.

Personal Farm Experience

The items on this page all come from the firing line of farm production.

HOG BUSINESS

We have a recently-built farrowing house with 18 crates, each 7 feet by 2 feet. The clear span steel frame building measures 24 by 60 feet, has electric heating cable in the cement floors where little pigs run. The floor under the sows is made of 5/8 inch exterior plywood.

The heated concrete area starts at the bottom with a layer of gravel, on top of which is a plastic vapor seal. Then comes 2 inches of Styrofoam insulation, on top of which is 2 inches of concrete. Finally, another 1½ inches of concrete is placed that carries the electric heating cables.

Fiberglass bats 2 inches thick are used to insulate sidewalls; the same material in a 4-inch dimension is used in the ceiling. A material we call "concrete board" forms the inside wall. No serious moisture problems have developed; three fans (each 24-inch) move air . . . two on thermostats and one running all the time. Air is pulled into the building under the eaves.

Except for a window in the door leading outside, it is a completely windowless building. Lights are on only when someone is working in the building; some light comes in the door window, of course. So far, we don't see any difference one way or another as far as light is concerned in affecting growth of pigs.

Next year we think we'll put in extra heat because we don't like to see the temperature in a farrowing house go below 60 degrees. We prefer cold weather farrowing, believe that pigs eat and grow better. Pellets and water are provided small pigs at about two weeks of age.

Sows are let out of the farrowing crates for feed and water twice a day at regular times for about an hour each time. We never had a problem with stiff joints when sows were kept in crates without being let out, but having them move around is good insurance. Another insurance is to clean out and disinfect the building between farrowings, something much simpler now than with the facilities we used previously.

We use Hampshire boars on sows that are a cross of Landrace and Yorkshire. Our plans call for a farrowing group to go in the crates every two months. — **Bernard Keim, King Ferry, N. Y.**

MORE SILAGE

We put up another silo last summer . . . an 18′ x 50′ to go with the 14′ x 40′ we already had. We're going heavier on corn, plan to feed our 50 cow herd as much corn silage as possible.

Hay is still in our plans, though, and we're exploring better ways to make a seeding. On about August 10 last summer we seeded 15 acres with Narragansett alfalfa, after first fertilizing with 300 pounds per acre of 10-20-30. A lime test is always made first and lime added if needed. When making such a seeding, we prefer to plow one day and seed the next, but it doesn't always work out that way. — *Arthur Nahrwold, Middleburg, N. Y. (Editor's note:* Arthur and Nora Nahrwold are a real husband-wife team. Nora helps with milking and field work as well as caring for three children. Farming is one of the few professions where husband and wife can share this way in management and effort.)

INCENTIVE PLAN

The herdsman caring for the dairy part of our business (36 cows) starts with a base salary (paid weekly) which is the average for the area.

In addition, he has encouragement in an incentive which is paid monthly. The incentive is based on three variables — volume of milk production; keeping cost per hundredweight below the DHIC average; and keeping the raw plate bacteria count under 5,000. We provide him with a good house, and just recently built a new garage for his use.

My son-in-law is in charge of the fruit enterprise; he also has an incentive system whereby he receives a portion of the net fruit profit in addition to a salary.

Our fruit harvest help have an incentive based on quality work —

(Continued on page 10)

BEEF CATTLEMEN'S COURSE

Carcass evaluation, animal health, and several agricultural engineering topics including feed lot arrangements, materials handling, and feed processing, will be given special emphasis at the 14th annual Beef Cattlemen's Short Course scheduled at Cornell University for January 18-22. A variety of other subjects will also be discussed including feeding, breeding, marketing and management. The last two days of the course will feature discussions, demonstrations and practice in getting cattle ready for shows and sales.

Both purebred and commercial producers were considered when the program was prepared. Although special emphasis has been given to subjects of interest to people new in the cattle business, anyone interested in beef production should find the program worthwhile. Ladies are always welcome. So are "out-of-staters."

For copies of the program and additional information, get in touch with your county agricultural agent, or with M. D. Lacy, Morrison Hall, Cornell University, Ithaca, N. Y.

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ALBANY, Albany Agway, Inc.
ALBANY, Albany Army & Navy
ALBANY, Famous Shoe Store
ALBANY, Jules Shoes-Westgage
ALBANY, Young's Stride Rite Store
ALBION, Orleans G.L.F.
ALBION, Ralston Purina Co.
AMENIA, Dutchess Surplus Store
AMSTERDAM, Amsterdam Agway, Inc.
ARGYLE, Argyle Variety Shop
ATTICA, Attica G.L.F.
AUBURN, Auburn Agway Farm Store
AUBURN, Bennett & Troy Shoes
AUBURN, Nolan's Shoes
AVON, Avon G.L.F.
AVON, Sam D'Angelo
AUSABLE FORKS, National Army & Navy
BAINBRIDGE, Bainbridge G.L.F.
BALDWINSVILLE, Glass' Family Shoe Store
BALDWINSVILLE, Winship Shoes
BATAVIA, Batavia G.L.F.
BATH, Harold's Army & Navy
BATH, Hough's Shoe Store
BECKER'S CORNERS, Smith's Market
BEEKMAN, Carroll's Economy Store
BINGHAMTON, Barron's Shoe Store
BINGHAMTON, Binghamton G.L.F.
BINGHAMTON, Dwyer's Junior Shoes
BINGHAMTON, Fowler, Dick & Walker
BINGHAMTON, Lewis' Shoe Market
BINGHAMTON, Norman Uniform Co.
BINGHAMTON, Nu Way Shoe Repair
BINGHAMTON, McLean's-Main Floor Shoes
BINGHAMTON, Vogue Shoe Store
BINGHAMTON, The Walking Shoe
BINGHAMTON, Ward's Army & Navy—both stores
BREWSTER, Markoff's Shoes
BRIDGEHAMPTON, L. I., Bridgehampton G.L.F.
BUFFALO, Pohl's Shoes—all stores
BUFFALO, S & W Shoe Store
CALEDONIA, Peter Tucci
CAMBRIDGE, United Farmer Supply
CANAJOHARIE, Schultz Shoe Store
CANASTOTA, Albanese Shoe Center
CANASTOTA, Aquino Shoe Store
CANISTEO, Cleveland Sport Shop
CANTON, Grasse River G.L.F.
CARMEL, Markoff's Shoes
CASTILE, Pardee Agway, Inc.
CATSKILL, Arnold's Army & Navy
CENTRAL ISLIP, L. I., Central Islip Agway, Inc.
CENTRAL SQUARE, Shaw Shoe Store
CHAMPLAIN, Champlain Agway, Inc.
CHAMPLAIN, Pearl Dept. Store
CHATEAUGAY, Pearl Dept. Store
CINCINNATUS, Jackson's Dept. Store
CLINTON CORNERS, Clinton Corners Agway, Inc.
CLYDE, De John Shoe Store
CLYDE, A. Ditorio Shoe Service
CLYMER, Clymer Agway, Inc.
COOPERSTOWN, Farm & Home Bargain Center
CORNING, The Bootery
CORNING, J. L. Clark Shoes
CORNING, Harold's Army & Navy
CORNING, Hudson Shoe Co.
CORTLAND, Geo. Bowker Shoe Store
CORTLAND, Russ Fulmer Shoe Store
CORTLAND, Wirthmore Stores
DANSVILLE, Boyd's Shoe Store
DEPOSIT, Sunny's Dept. Store
DE RUYTER, Carter's
DE WITT, Dwyer's Junior Shoes
DOLGEVILLE, Producers Cooperative, Inc.
EAST GREENBUSH, Snuckles Bros. Shoes
EAST HAMPTON, East Hampton Shoe Co.
EDEN, Walter Geiger Agway, Inc.
EDWARDS, Pearl Dept. Store
ELBA, Village Variety Store
ELLENBURG DEPOT, Pearl Dept. Store
ELLICOTTVILLE, Ellicottville Agway, Inc.
ELMIRA, Elmira Agway, Inc.
ELMIRA, Harold's Army & Navy
ELMIRA, Hudson Shoe Co.
ELMIRA, Lewis Shoe Market
ELMIRA, Panusian's
ELMIRA, Savino Shoes—both stores
ELMIRA HEIGHTS, Heights Family Shoes
ENDICOTT, The Burt Company
ENDICOTT, Chambers Shoe Store
ENDICOTT, Dwyer's Junior Shoes
ENDICOTT, Alexander Harvey
ENDICOTT, Juvenile Shoe Store
FALCONER, Falconer Agway, Inc.
FEURA BUSH, Raymond Vadney
FORESTVILLE, Wallace's Dept. Store
FORT PLAIN, Dutcher Shoe Store
FORT PLAIN, Hallsville Farm Supply
FORT PLAIN, Parr's Shoe Store
FRANKLINVILLE, Martiny Brothers
FREDONIA, Pomfret C & E Grape Growers Co-op
FULTON, Cortini's Shoes
FULTON, Fulton Agway, Inc.
FULTON, Lambrino's Shoe Store
GENESEO, Smith's Shoe Store
GENEVA, Di Buro Shoe Service
GENEVA, Super Army & Navy
GENEVA, Troll's Shoe Store
GERMANTOWN, Germantown Cooperative Assn.
GRANVILLE, Granville Agway, Inc.
GREENE, Miller Shoes
GREENWICH, Greenwich Agway Store
GROTON, Groton Feed Company
HAMBURG, Endicott-Johnson Shoes
HAMILTON, John's Shoe Shop
HERKIMER, Herkimer Agway, Inc.
HERMON, Pearl Dept. Store
HILLSDALE, Hillsdale Sport Shop
HILTON, Hilton Agway, Inc.
HOMER, Homer Men's & Boys
HORNELL, Hornell G.L.F.
HORNELL, J. La Piana
HORSEHEADS, Horseheads G.L.F.
HUDSON FALLS, Heil's Shoe Store
HUNTINGTON STA., L. I., Huntington Agway, Inc.
ILION, Wagner's Shoe Store
ITHACA, William's Shoe Store
JAMESTOWN, Arcade Shoe Store
JAMESTOWN, Brown-Bilt Shoes
JAMESTOWN, Carnahan's
JAMESTOWN, Herbert's Shoe Store
JAMESTOWN, Ross Shoes
JOHNSON CITY, Nic Nac Shoe Store
JOHNSON CITY, Rasco Shoe Co.
JORDANVILLE, Vincent Briggs
KINGSTON, Esposito's Footwear
KINGSTON, Rowe's Shoe Store
KNOWLESVILLE, Knowlesville G.L.F.
LAKE PLACID, National Army & Navy
LEROY, Pat's Bootery
LEROY, Crocker's Agway, Inc.
LEWIS, Benedict & Sons
LINWOOD, Linwood Agway, Inc.
LIVINIA, J. C. Monte
LOWVILLE, Lowville Farmers Cooperative
LYONS, Mens & Boys Shop
MALONE, National Army & Navy
MANLIUS, Leader Shoe Store
MARILLA, R. S. Moore Agway, Inc.
MASSENA, National Army & Navy
MEDINA, Baughn's Shoes
MEDINA, Wolk's Mens & Boys
MEDUSA, Ernest Bell
MIDDLEPORT, Harpuder Mens Shop
MIDDLETOWN, Roberts' Shoes
MIDDLETOWN, Middletown G.L.F.
MILLERTON, The Millerton Store
MONTOUR FALLS, Guild Brothers
MORAVIA, Jennings Dept. Store
MORAVIA, Moravia G.L.F.
MORRISVILLE, Carter's
MT. KISCO, Markoff's Shoes
MT. VERNON, Chambers Army & Navy
NEWBURGH, Haber's Shoe Store
NEWBURGH, Smith's Shoe Store
NEW HARTFORD, Sautter's Shoes
NEW ROCHELLE, Jack's Army & Navy
NORTH CHILI, Higbie Farm Supplies
NORTH COLLINS, North Collins G.L.F.
NO. SYRACUSE, Dwyer's Junior Shoes
NO. SYRACUSE, Marv's Wearing Apparel
NO. SYRACUSE, Unger's Shoes
NORTON HILL, L. H. Powell & Co.
NORWICH, Under Price Shoe Store
NORWICH, Urlwin's Shoe Store
OLEAN, Dahar's Shoe Shop
OLEAN, Lester Shoe Co.
ONEIDA, Alfred Bargain Center
ONEIDA, Garafalo's Shoe Store
ONEIDA, Oneida Agway, Inc.
ONEIDA, Oneida Milling Co.
ONEONTA, Bruno's Variety Store
OSSINING, Stiller Shoes
OSWEGO, Oswego Agway, Inc.
OWEGO, Langdon's Army & Navy
OXFORD, Kol's Clothing Store
PALATINE BRIDGE, Wirthmore Stores
PALMYRA, Edwards Shoes
PENN YAN, Penn Yan G.L.F.
PERRY, Perry G.L.F.
PHELPS, Phelps Agway, Inc.
PLATTSBURG, Plattsburg Agway, Inc.
PLATTSBURG, National Army & Navy
PORT HENRY, National Army & Navy
PORT JERVIS, Cordisco Footwear
POTSDAM, Potsdam G.L.F.
POTSDAM, National Army & Navy
POUGHKEEPSIE, Dutchers Shoe Fair
RANSOMVILLE, Leo Schultz Agway, Inc.
RICHFIELD SPRINGS, I. L. Richer Co.
RIVERHEAD, L. I., Carl & Bob's Outdoor
RIVERHEAD, L. I., Lepco Agway, Inc.
ROCHESTER, Altier & Sons
ROCHESTER, Wm. Eastwood & Son
ROCHESTER, Schmanke's Boot Shop
ROME, Sam Barune Shoe Repair
ROME, Rome Bargain Center
SALAMANCA, Mason's Shoes
SALAMANCA, Salamanca G.L.F.
SALAMANCA, Sloan's News Room
SANBORN, Sanborn Milling
SAYVILLE, Sayville Sports
SELKIRK, Selkirk Y.M.C.A.
SENECA FALLS, Ceo & Rutz Shoes, Inc.
SHERBURNE, Hodge's Shoes & Clothing
SIDNEY, Brooks Shoe Store
SPRINGDALE, Browns Shoe Store
SPRINGDALE, Mason's Shoes
SYRACUSE, Ames Shoes
SYRACUSE, Charney's Shop, Inc.
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SYRACUSE, Duane's Shoes
SYRACUSE, Dwyer's Jr. Shoes
SYRACUSE, E. W. Edwards & Son
SYRACUSE, Manny's
SYRACUSE, Rochester Sample Shoe Store
SYRACUSE, Salina Shoes
SO. WESTERLO, Charles Bogardus
TROY, Cooper Shoe Specialist
TROY, Jim's Shoe Repair
UTICA, Berger Dept. Store
UTICA, Sautter's Shoes
VERNON, Vernon Army & Navy
WARRENSBURG, Engles Dept. Store
WARSAW, Montgomery Shoe Store
WATERTOWN, Max Alpert, Inc.
WELLSVILLE, Ludden Shoe Store
WEST FALLS, Arlen's Agway, Inc.
WHITEHALL, Whiting Army & Navy
WHITE PLAINS, Jack's Army & Navy
WHITNEY POINT, Barnes Store
WHITNEY POINT, Point Shoe Box, Inc.
WILSON, R. E. Stacy, Inc.
YONKERS, Packer's Shoes
YORKTOWN, Ben Markoff Shoes

PENNSYLVANIA

CAMBRIDGE SPRINGS, Smith's American Hardware
CLARION, Campus Shoes
COCHRANTON, Poly's Men's & Boy's Wear
EDINBORO, Edinboro G.L.F.
EVANS CITY, Evans City Hardware
GALETON, Galeton Agway, Inc.
KANE, The Hub Shoe Co.
KANE, Mountain City Booterie
MEADVILLE, Burnison's Shoes
MEADVILLE, Factory Shoe Store
MEADVILLE, C. A. Miller's Shoes
MERCER, Hogue's Shoe Store
MONTROSE, Andre & Son
NEW BETHLEHEM, Robert's Men's Shop
OIL CITY, Oil City Army Store
OIL CITY, Park Shoes
OIL CITY, Sportsmens Den
PUNXSUTAWNEY, Freelee's
SHARON, Lustig's, Inc.
SPARTANSBURG, Platts Mill
TITUSVILLE, Bird's Shoes
TITUSVILLE, O'Neil's Shoe Store
TUNKHANNOCK, Tunkhannock G.L.F.
UNION CITY, Mandel's
UNION CITY, Union City Cooperative Assn.
WARREN, Lester Shoe Co
WARREN, Valone's Shoe Store
WATERFORD, Waterford Agway, Inc.
WESLEYVILLE, Toby's Shoes & Apparel
YOUNGSVILLE, Walt's Family Shoe Store

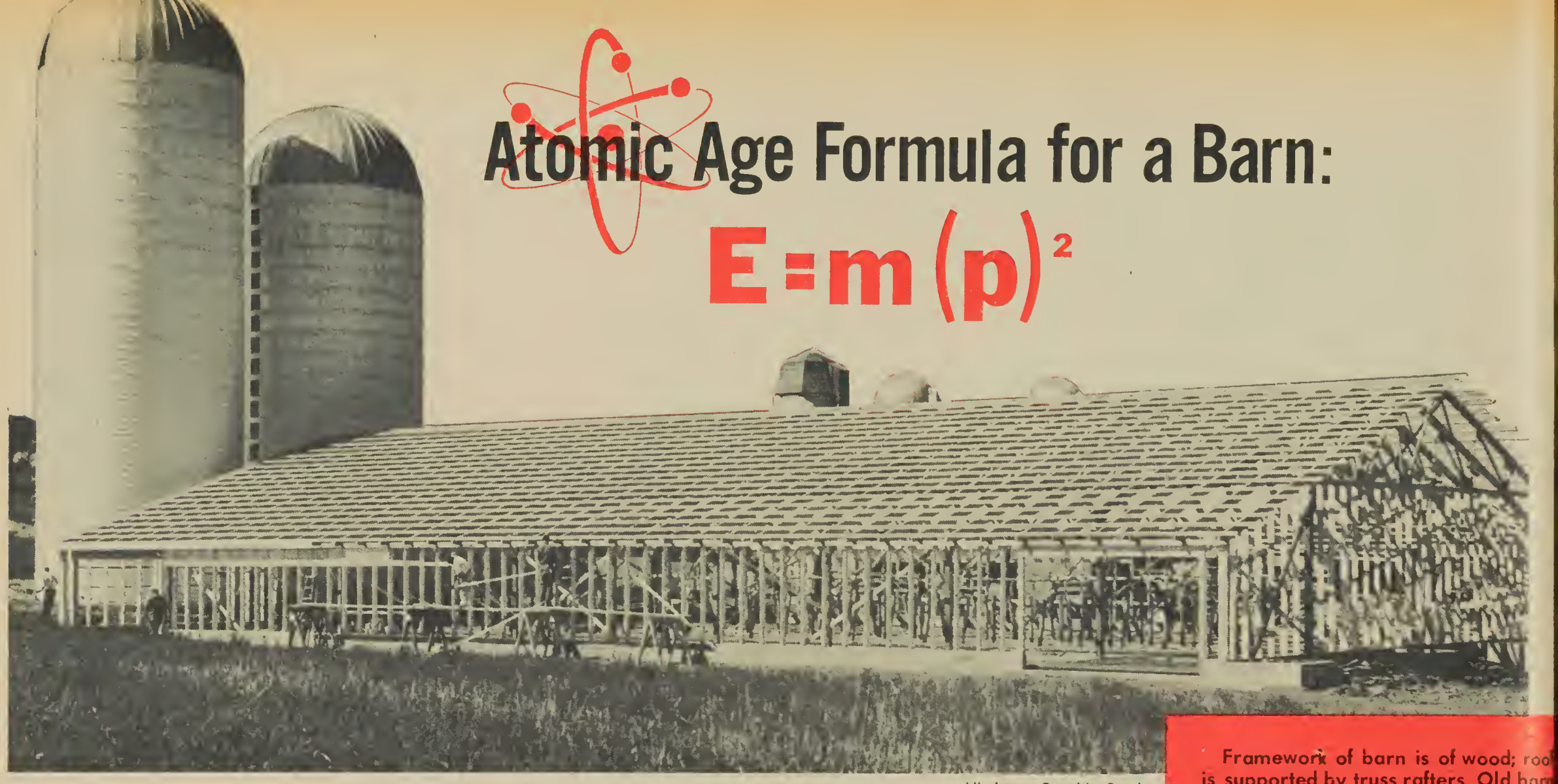
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BRANCHVILLE, Branchville Agway, Inc.
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COLUMBIA, G. C. Kinney & Son
FLEMINGTON, Hunterdon G.L.F. Service
HACKETTSTOWN, Tickner's Farm Supplies
HILLSDALE, North Bergen County Cooperative Assn., Inc.
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FOR STORMY WEATHER PROTECTION... *"NOTHING TAKES THE PLACE OF RUBBER"*

Atomic Age Formula for a Barn:

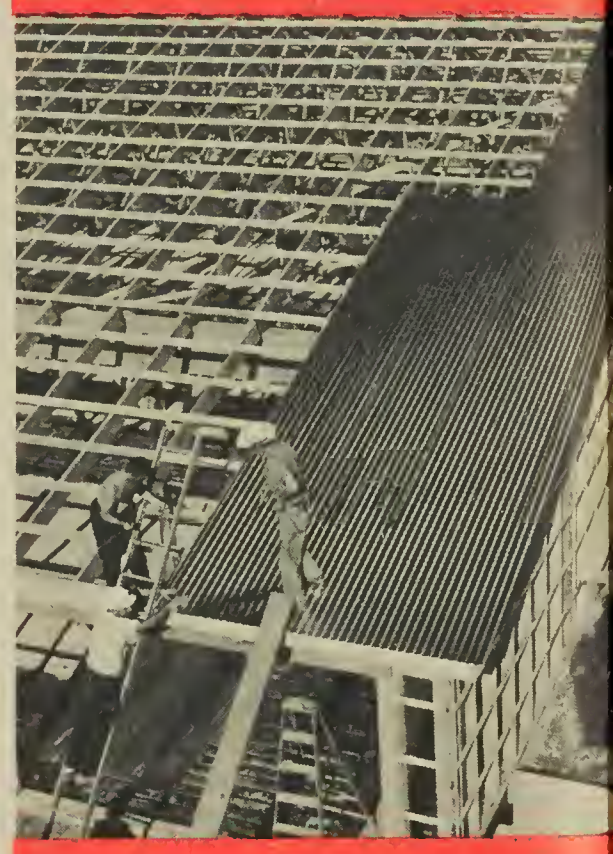
$E=m(p)^2$



All photos: Republic Steel

Here's an on-the-farm experimental barn designed to find better ways to house and handle dairy cows.

Framework of barn is of wood; roof is supported by truss rafters. Old barn served by three silos just visible over roof ridge will continue to be used for young cattle and dry stock.



Each strip of steel roofing is 24 feet long. One pumping station for liquid manure is just visible at lower corner of barn. Behind and below the shirtless worker can be seen one of the concrete islands on which free stalls are positioned.



Pete Ozark (left), was contractor for the barn. Siding is steel Rigid-Rib; completed building has four inches of insulation between studs plus fiberboard that forms inside wall.

by Gordon Conklin

THE ATOMIC AGE DAWNED when Albert Einstein conceived the deceptively simple formula $E=m(c)^2$. A similar formula is transforming the farmstead . . . Efficiency = materials multiplied by power squared. Hundreds of tons of feed, water, manure and milk have to be moved on an average dairy farm; moving them with muscles of steel powered by electricity or internal combustion engines has become the order of the day.

A new experimental barn (74 x 130 feet) just completed at Harold and Doris Hawley's Gayway Farm near Weedsport, New York, is making possible the exploration of new dimensions in housing and handling dairy cows. It is the only barn of its type anywhere; the equipment and ideas incorporated in its design have been used elsewhere on a piecemeal basis, but this is the first time they have all been combined at one place.

Agway and Republic Steel are directly involved in its construction; other organizations working closely with the project in one way or another include the New York State Department of Health Milk Section, the New York City Department of Health Milk Section, the Colleges of Agriculture and Veterinary Medicine at Cornell University, and the New York State Electric and Gas Corporation. New York Commissioner of Agriculture Don Wickham and Associate Commissioner John Stone have been active in paving the way for the project. Gordon Perry of Agway is the designer; Pete Ozark of Weedsport is the building contractor.

Some Details

Briefly, it's a free stall barn for 140 cows with a liquid manure handling system consisting of pits beneath steel slats that make up the floors in all alleyways and in the holding area. The individual Rigid-Floor®slats are held together with steel clips to make a rigid grid pattern. They are supported on vertical timbers pressure-treated with creosote to withstand the decomposing action of the liquid in which they stand. The downspouts carrying water from the barn roof drain into the pits, as do the drains from the milking parlor; additional water can be added from a well as needed to provide a slurry consistency of waste materials.

Six pumping stations are included in the design . . . more than believed necessary . . . but remember this barn is experimental and is therefore "overdesigned" throughout to provide maximum flexibility. The PTO-operated pump is rated at 2,500 gallons per minute; may be used for emptying the pits or recirculating the liquid in order to get all wastes into suspension. The spreader carries 750 gallons, has a PTO-operated agitator inside its tank and powered spinner in the rear to spread the liquid.

Easy Cleaning

Manure is worked through between slats by the movement of the cows' hooves; droppings are pulled out of the free stalls onto the steel slats at least once a day. Bedding materials being tried include chopped straw, sawdust, wood shavings, vermiculite, stone quarry screenings, and rubber mats. Several curb heights behind the stalls are being used, ranging from 0 to 12 inches, and a number of different types of stall partitions will be observed over a time to see which one does the best job. The free stall beds are on top of three 14.5 foot-wide concrete islands that slope both ways from the center, each island having two rows of cows facing each other.

Feeding in Stalls

Contrary to the majority of prevailing designs, these cows are being fed roughage in the free stall barn from mangers between two rows of cows facing each other. Because there are six rows of cows, this means three mangers. Two silos (one 22 x 50, the other 22 x 60) provide all the roughage that will be fed . . . one contains haylage and the other corn silage. When asked why one silo is shorter than the other, Harold

(Continued on page 10)



Thomas Wiggins (left) and Robert Taylor of Republic Steel install clips that make a rigid grid of steel slats. Pit under slats holds animal wastes.



Mr. Cosh and his "1010" Row-Crop Utility take hilly land in stride with three 14-inch bottoms in tow.



"This John Deere 1010 plows hilly land that stopped my old tractor of the same size."

A New York dairyman reports: Arthur Cosh farms 320 hilly acres in Orange County. He grows alfalfa, corn, and hay—feeds it all to his herd of 130 registered holsteins. Production? . . . last year 70 head averaged 14,138 pounds of milk! Somehow or another, Mr. Cosh also finds time to be an Extension Service director, a Farm Bureau member, Justice of the Peace, and a member of the local fire company. But he'll pause to talk about his John Deere "1010" anytime . . .

"At one time I didn't think a "1010" would have enough power for me on my hills. I couldn't have been more wrong. My dealer brought it out; said: 'Use it.' I tried it plowing, baling, crushing, raking, harrowing . . . the "1010" did everything I asked of it wherever I put it. I can plow with three 14-inch bottoms in hilly land that stopped my old tractor of the same size. It'll handle two 14's even easier . . . and do a real job.

"This "1010" does an economical job. I can do my raking just as fast with this tractor as I could with a larger tractor . . . at less than half the cost. I fill the tank in the morning and forget it; I know I'll have enough.

"I can go places with the "1010" I wouldn't dare with my tricycle tractor. It's a stable tractor. My farm runs as much up and down as it does on the level. The "1010" is heavier than a competitive make of comparable size I used to own. It hugs steep hillsides—and I mean steep—even with my heavy baler.

"It's an easy tractor to handle, too. My wife drives it without difficulty when we're in a rush. My son says it's easier to handle and easier riding than my larger tractor.

"In one statement—the "1010" is a big tractor in a small package."

Had doubts about whether a "1010" could cut the mustard on your farm? Arthur Cosh did, too, until he tried one. Not much question about how high a value he places on that "small package" of power, is there? The same surprising zest is awaiting you at the turn of the "1010's" ignition key. Your dealer will turn it over to you for a "1010" trial run any day, any place, you name. Ask him about financing terms under the John Deere Credit Plan—they're surprisingly small.

JOHN DEERE
Moline, Illinois

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3/4 PURE
Game Cornish
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2882 E. Main St., Columbus 9, Ohio

Atomic age

(Continued from page 8)

grins and says, "Well, we filled one with haylage and it settled in the ground ten feet!" Actually, a last minute decision to build the second silo 60 feet high was made too late to change the height of the 50 footer already well under construction.

Each silo has its own unloader so that the two types of silage may be blended at one feeding if desired. Unloaders discharge into an elevator that in turn delivers to a cross conveyor fixed in position. The conveyor delivers to any one of three discharge points, each point over one of the three mangers. A feeding auger that moves on an overhead track to serve each of the three mangers completes this materials handling job.

Barn Specifications

As for the barn itself, it is clear span for a width of 47 feet in the center, but has a row of posts 12 feet from each wall. Its roof is carried on 43 truss rafters, each rafter requiring 1,100 nails for its construction!

It's a "warm barn" with 4 inches of glass fiber insulation in the walls and 6 inches above the ceiling...a ceiling of plastic-surfaced fiberboard. A layer of polyethylene film above the fiberboard serves as an extra vapor barrier; above this film is the insulation already mentioned. Positive ventilation is provided by three 36 inch exhaust fans with a total capacity of 30,000 cfm. One fan runs continuously, the others are controlled by thermostats. Each one has three different volume positions on its controls. Air intakes consist of slots along the eaves.

Natural light is provided by a fiberglass panel 18 inches wide going completely around the barn just under the eaves. Incandescent lights provide 10-15 foot candles throughout the interior of the barn when turned on; about 1,000 watts of lighting are left on as night lights.

Electricity carries the ball in the 20-stall herringbone milking parlor, too, but here fluorescent lights supply a level of 50 foot candles. During the night (on lower rates), kilowatts heat the water to be used in the baseboard radiators that heat the parlor; storage tanks above the parlor hold it until needed for morning and night milkings.

Design specifications provide for maintaining a temperature of 70 degrees in the parlor even if winter temperatures plunge to 10 degrees below zero outside. In the summer, air-conditioning provides a temperature inside of 10 degrees below whatever the outside reading may be; if all outdoors is baking at 85 degrees, it will be a comfortable 75 inside.

Overhead Feed Storage

Also overhead in the 42 x 45 foot parlor wing is a 20 ton feed storage. Feed flows by gravity into manger boxes at the front of each herringbone stall; water may be automatically mixed with the feed to form a slurry. Iowa hog farmers may be a bit confused by it all, but it is now proper to say "slop the cows."

There will eventually be 20 milker units in the parlor (10 now), designed so that one man can milk 10 cows at one time. The milker is one whose teat cups automatically break the vacuum when a quarter is milked out, thereby preventing overmilking. Using ten units at a time, one man should be able to milk 140 cows in about one and one-half hours. To have 140 cows in the milking string, of course, will require a 160-170 cow herd.

The half of each herringbone platform toward the wall is concrete, the other half on the pit side is made of steel. Under the steel portion are the milk pipeline, vacuum line, water pipe, hot water heater line, and any experimental mechanism such as an hydraulic cylinder for moving the milking units vertically and horizontally.

Other Rooms

In addition to the milking area itself, the parlor wing includes a 20 x 24 foot milkhouse (sized for two 1,000 gallon bulk tanks), a cow return alley, a utility room (boiler, heat exchanger, water conditioner), hospital room, and finally a place for the vacuum pumps and condensing unit. There is an observation platform at one end of the parlor with one-way glass so people can watch the milking procedure, but cows (or the man milking) can't see the observers.

Harold will have to be clean shaven and on his best behavior at all times . . . never know who's watching! He is hoping fellow dairymen will understand, though, and not visit him until about the middle of January, after he has had a "shakedown cruise" with his new ship and the cows are used to the new arrangement.

Every dairyman wonders about the cost of any new structure. Remember that this barn is overdesigned to allow for maximum possibilities for experimentation. However, cost is brought down by the fact that only 60 square feet are allowed per animal . . . this is below the former 100 square feet minimum. Gordon Perry estimates that final cost of the housing structure only (not the parlor wing), plus its equipment will be less than $300 per cow . . . assuming standard construction techniques and that the entire job would be done by a contractor.

Again, it must be emphasized that this is an experimental structure and no dairyman should try to duplicate it until it has proven itself and been given final approval by the health departments involved. Fortunately, health department personnel welcome research such as this, designed to find better ways to house and handle dairy cattle. However, they don't intend to authorize another such structure until this one has been underway long enough to provide some well-founded evidence.

Looking ahead, tentative plans call for a third silo to store high-moisture mature grain corn. The Hawleys pick 100—125 acres of corn annually so they would have plenty available for such storage. The third silo could easily be tied into the materials handling system so corn could be blended with the roughages.

Materials handling and environmental control are the terms used by design engineers to describe the primary considerations in farmstead engineering. New dimensions of both are being explored at Gayway Farm. Keep an eye on Harold's monthly column in this publication for reports on how it works, what didn't work, and what he is planning next.

Farm Experience.....

(Continued from page 6)

full containers, unbruised fruit, care not to break trees, etc. This, of course, is piece work (by the box) and the pickers who stay for the full picking season receive an extra two cents per box. — **Luther Jennejahn, Hilton, N.Y.**

ROUGHAGE-HAY

We use all hay as a roughage for our 65 milk cows. Two fans moving cold air speed up haying; hay goes on the dryer at 30 to 40 percent moisture, and the fans run for two weeks to a month after we start haying. Bales are stored on the ground in a metal roofed barn and brought on a rubber-tired wheelbarrow to the stable.

We raised some corn on our 160 acres of cropland up until five years ago, but our growing season is short for corn . . . often a frost around June 1, and always one by September 10.

We didn't want to have equipment to handle both hay and corn, so we quit corn. Now we have two balers so we can make hay faster and so we can keep on rolling if one breaks down. We're sold on early cut hay.

Our herd gets a 16 percent protein grain ration at a grain-to-milk ratio of about 1 to 2.6. Cows get about all the grain they can eat for the first two or three months after freshening. — *Keith Ritchie, Bradford, Maine.*

NO HAY

We grew 150 acres of corn for silage in 1964, and harvested 100 acres for hay-crop silage . . . fed no hay to our 130 cows. A custom operator does the harvesting, putting silage into a tilt-up concrete bunker silo over which is put a plastic cover. Construction costs for this structure were one dollar per ton of material stored; it's been used for both low-moisture hay-crop silage and for corn silage. We also have a steel airtight silo and use it for storing high-moisture grain corn.

One hundred acres of our corn was dwarf . . . we think it's higher in energy per pound, and it stands better. We like to let corn mature pretty well before ensiling it; in 1963 were putting in silage on October 15.

Our free stall barn and double-five herringbone milking parlor help make it possible to produce nearly 700,000 pounds of milk per man (total of 1,390,000 lbs. last year). — *Ralph Hurlburt, Pomfret, Connecticut*



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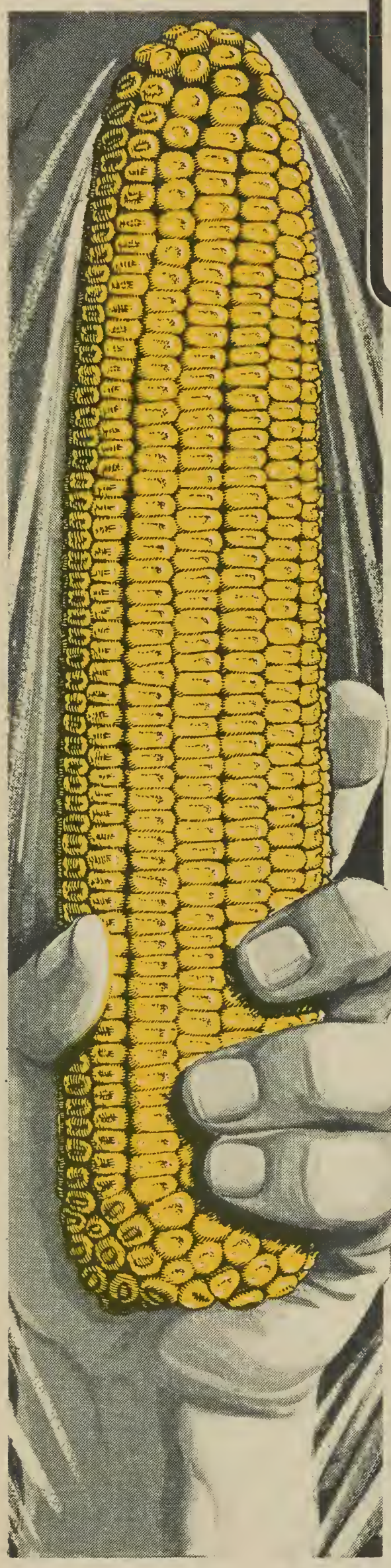
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AA FARM DOLLAR GUIDE

LATEST RECOMMENDATIONS for feeding dairy cows for full production divide program into two stages. First, from time cow approaches calving through peak production give her 12 to 20 lbs. of grain at calving time, then increase as long as she cleans it up until peak production is reached. Then adjust grain allowance to DHIA recommendations. Figures show some dairymen tend to underfeed in early lactation, overfeed in latter stages.

UNDER DEMOCRATIC ADMINISTRATION, what government programs can farmers expect? Here are some probabilities: (1) a push to strengthen farm cooperatives; (2) another land retirement program, possibly to take as much as 40 million acres of marginal land out of production; (3) more government aid to rural areas, including less prosperous farmers; (4) probably little change in commodity programs for wheat, feed grains and wool, perhaps new programs for dairy products (the two-price system) and soybeans; (5) more push for food exports.

ADEQUATE WATER is a problem on many farms. Some who hire water hauled have a storage problem between tankfuls. Some are drilling, but well drillers are mostly booked ahead for 6 to 8 weeks. As of the middle of November heavy rains are slow in coming. An early freeze-up would bring a critical situation. If you have helpful suggestions, let's hear about them.

IN COUNTIES DESIGNATED AS DROUGHT DISASTER AREAS dairymen might give careful consideration to government-owned corn. It is available at an attractive price, and there are advantages to this type of assistance as compared to an outright subsidy to all dairymen regardless of need.

WHEN WHEAT COSTS $1.20 a bushel, it is equal to corn at $40 a ton, says Professor Sam Slack of Cornell. It's a good cow feed up to 50 percent of the grain mixture; should be crushed or ground coarse.

WHY NOT INVENTORY your roughage supply now? A ton of loose baled hay will occupy 250 to 300 cubic feet; a ton of tight bales 200 to 250 feet. Best way to estimate silage is to use a silo capacity table. You should be able to get one at your county Extension office. Remember that a ton of hay is about equal to 3 tons of corn silage.

The Song of the Lazy Farmer

Another year's about to close, I'll swear I don't know where time goes; the months have gone by mighty quick, but I ain't got a single kick, because this year, at least for me, was fairly satisfactory. The crops were fair, the price not bad, the weather not the worst we've had; the fish bit good all summer long, and now the huntin's going strong. I've not been sick of anything except at planting time last spring, my lame back hasn't hurt at all except at harvest time this fall; there's even been some days, by gee, when my wife didn't yell at me.

Of course, I haven't gotten rich, but I escape the problems which make neighbor pay an awful toll in worry 'bout his big bank roll; I've made enough to keep us fed, we've got a good roof o'er our head. To do much better would require that I work like a ball of fire; and what would be the sense of that, I'd have no time to hang my hat and lay upon the couch to rest, that's what I like to do the best. No sir, I'm satisfied as is, let neighbor be a farming whiz; why, I'll be old and full of vim long after they have buried him.



single beater spreader

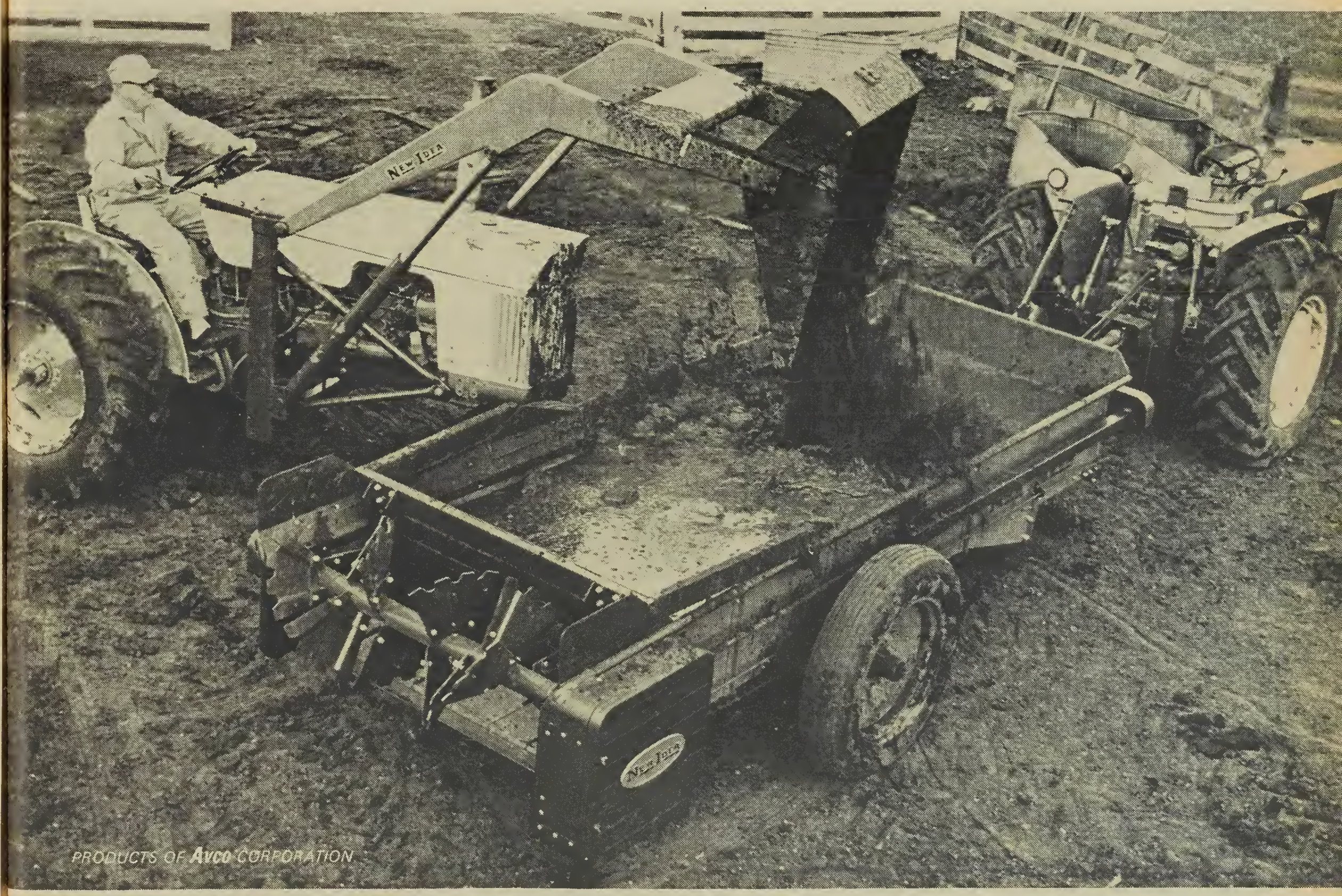
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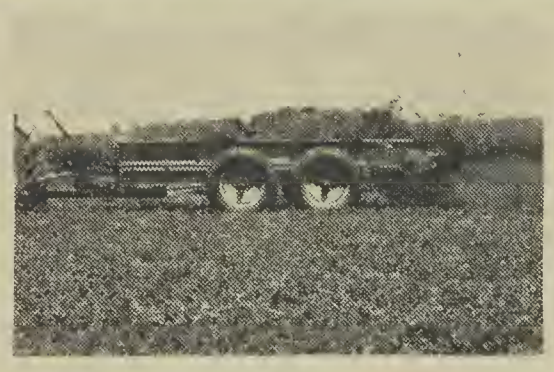
A powerful partner for any New Idea Spreader, is the brand-new New Idea Loader (shown below). Radically improved, it has the power and performance you want in a farm loader. It's ruggedly built, with mechanical bucket control. The tine bucket can be quickly converted to dirt or snow bucket. You'll like its low price, too. See these, and other fine machines at your New Idea dealer today. Or write: New Idea, Coldwater, Ohio.



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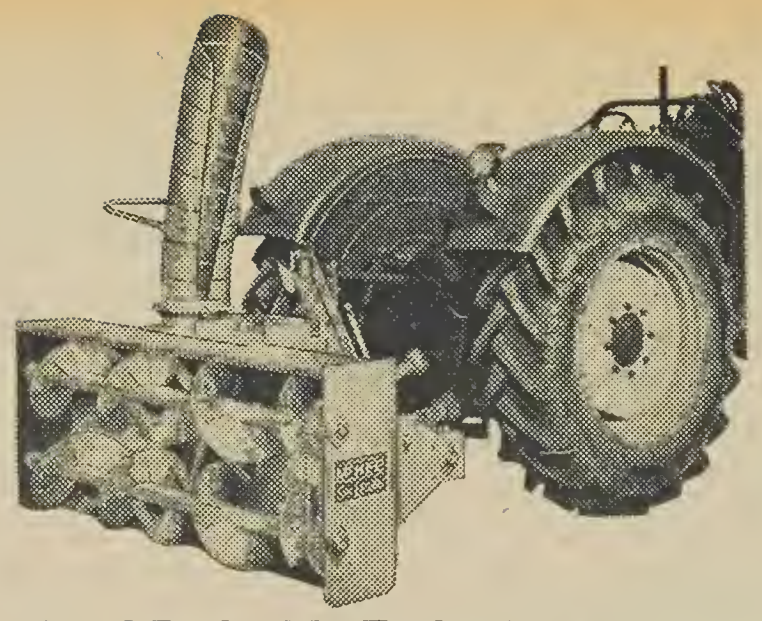
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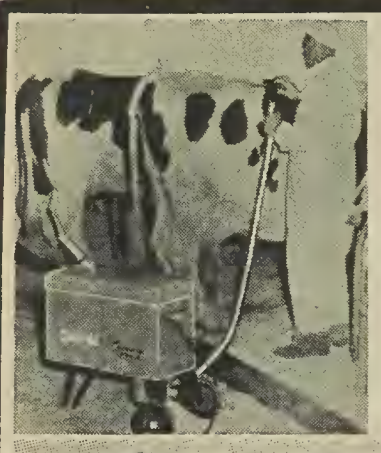
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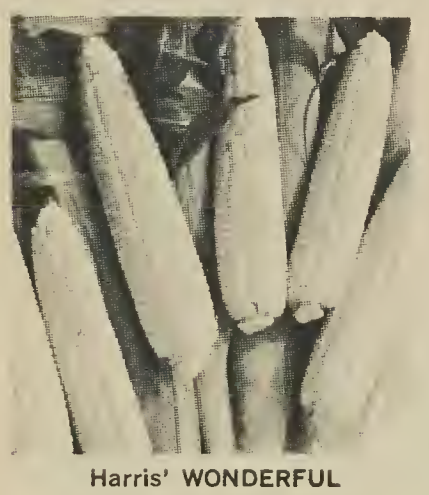
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"Doc" Mettler Says:

BARN BEDCHECK PAYS

AN OLD TALE tells us that at midnight on Christmas Eve the animals in a stable are able to talk. Having spent more than one Christmas midnight in stables, I can attest to the fact that, except for a few parakeets and a Brown Swiss cow in Connecticut that says "mama," I have never heard animals talk. Nevertheless, there is something about a clean, well-bedded stable on a winter's night, be it Christmas or any other night, that makes a good cow man able to tell almost as much about his cattle as if they could talk.

There is no half hour better spent by any man, whether he owns dairy cattle, beef cattle, horses or sheep, than the time he spends checking his animals before he retires for the night. Long hours are the curse of the farmer, yet I think most men who farm because they want to (and doesn't this include nearly everyone?) enjoy this time.

Evening Bedcheck

Besides pushing up the hay, fluffing up the bedding and checking the water buckets, what does a good cow man observe and do when he makes his evening check? On the way to the barn he observes the weather. If there seems to be a change coming he may want to have a little more or less ventilation than usual.

When he enters the barn he can tell by smell and the "feel" of the air if his ventilating fans are working properly. Before he even turns the light on, or before he disturbs the animals, he should listen for a minute or so for sounds of excessive coughing, or the sound of one particular animal breathing harder than is normal.

If you have never listened for coughing before, don't let it scare you, particularly in a sheep stable. Cattle and sheep both do quite a lot of normal coughing. When a herd or flock is in the early stages of shipping fever, however, or when calves are getting contagious calf pneumonia, coughing is often the first symptom.

Check The Unusual

A good herdsman knows what to expect as normal and observes immediately anything unusual, such as cow or ewe in loose housing standing off by herself, or a horse or cow with its bedding all kicked out, indicating colic. You might observe a cow standing that normally would be lying down. Is she in heat? Any cow standing with her back humped needs further watching for hardware, pneumonia or kidney trouble.

As you walk behind tied cattle you may observe loose, watery manure or, in some cases, the lack of manure behind a certain animal. You might note excessive discharge from the genital tract, indicating anything from a cow coming in heat to impending abortion.

A glance at the udder on each cow you walk by might show a blown quarter since milking time. Fresh cows, or cows ready to freshen, need special watching. Any fresh cow that doesn't get up readily, or just looks "off" . . . with anything from drooping ears to glassy eyes . . . could be getting milk fever.

As you walk down in front of the cattle you note any feed or silage left. Also you can see other indications that all is not well with an animal. Eye or nose discharge can warn you of pink eye or the start of respiratory trouble. Slobbering or "quidding" (spitting out pieces of cud or unswallowed hay) can indicate tooth trouble in both horses and cattle.

Next Move

Now that you have observed all of these things, what is your next move? In cases of genital discharge, make a note of it for further reference when you have your veterinarian in for sterility work. In most other cases . . . cough, diarrhea, constipation, fast or difficult breathing, swollen quarter, droopy ears, feed left uneaten, or just plain looking gaunt, the rectal temperature should be taken. Some farmers have a tendency to grab a syringe and needle before the thermometer; this is poor policy.

The one thing a farmer can do in the veterinary line just as well as a veterinarian is to take an animal's temperature. Antibiotics given haphazardly can mask a fever. A few days later, when you are paying the veterinarian to tell you why a cow doesn't eat, the fever may be gone and he may miss a diagnosis. If you could tell him she had a temperature of 103.6 the night before last it might change his diagnosis, or help him to make a correct one.

Never give cortico-steroids to a cow unless you are sure she needs them, and only if you're sure she doesn't have a fever. A shot of "cortisone" given because a cow might have acetonemia can be fatal if the cow is in the early stage of mastitis, pneumonia, or any infection.

NORMAL BODY TEMPERATURE RANGE

	Low Normal	High Normal
Dairy cow	100.4	102.8
Beef cow	98.0	102.4
Calf	99.0	102.4
Stallion	99.0	100.6
Mare	99.1	100.8
Sheep	100.9	103.8
Goat	101.7	105.3
Pig	101.6	103.6
Dog	100.5	102.5
Cat	100.5	102.5
Rabbit	101.5	104.2
Chicken	105.0	109.4

Note the great variation in cattle high and low normals. Everything from time of day to air temperature and type of feeding can cause variation within the normal range. If you are in doubt, check two or three other animals that appear normal and see how the temperatures compare.

Remember, hang onto the thermometer the two minutes it is in the cow. The big five inch thermometers cost over two dollars today, and break very easily. Smaller, cheaper thermometers

(Continued on page 15)

don't always give accurate readings on large animals.

Low temperatures often mean more trouble than high. As an example, the cow with milk fever usually runs a below-normal temperature, or at least is down lower in the normal range than her stable mates. If a cow is not running a high fever she can usually go until morning.

If an animal is carrying a temperature much above normal, you'd better at least call your veterinarian and talk with him. Tell him any other symptoms you have noted and he'll decide if he should see her, or perhaps tell you what to give her until morning.

No veterinarian likes to leave his home on a call at nine o'clock at night, but he'd rather treat a milk fever at that time than a half dead cow with her uterus prolapsed at five o'clock the next morning.

Let's hope that tonight everything is in order in your barn, and that you have a moment to turn your thoughts to another stable on a night nearly two thousand years ago. Perhaps you'll have the feeling that you, the man who cares for animals, although blessed with hard work, receive a special blessing in the sense of peace a man gains from knowing he is doing a worthy task.

May we wish you the best at Christmas!

— J. J. Mettler Jr. D.V.M, Copake Falls, New York

EXPERIMENTAL BARN

CONTRACTOR BERT SCHULTE of Cobleskill, New York, has been working, among many other things, on a barn-remodeling job at the farm of dairyman Claus Kroenecke, Lawyersville. The remodeling is being done with the cooperation of Agway to determine the feasibility of some new methods of materials handling.

Gutters behind the cows are 3′ deep and 16″ wide, covered by grating made of 5/8″ solid steel rods. Waste moves to a storage tank measuring 18′ x 46′ x 8′, designed large enough so it can be emptied every three months.

The tank, made of reinforced concrete, has three openings in its top through which a tractor pto-operated pump can be lowered. The pump can empty the tank, or it can back-flush the gutters if this is found to be necessary. Rubber mats are used for all cows with only a little sawdust as bedding.

Calves are being raised in pens having steel slot floors; their waste is also flushed into the tank. The 10′ x 32′ area for calves is divided by partitions into smaller pens, plus an area for ten older calves in stalls. A liquid manure spreader having special tires for greater flotation completes the manure-handling equipment.



Officers of New York Artificial Breeders' Cooperative, elected at the organization's 24th annual meeting. Left to right: Charles J. Krumm, Ithaca, assistant secretary-treasurer and general manager; Harold N. Harter, Jordanville, president; Douglas R. Stanton, Greenville, vice president; and Erton Sipher, Gouverneur, secretary-treasurer.



These five NYABC members were honored at the recent annual meeting. Each had the highest actual DHIA milk average for his breed during this past year. Sitting, left to right: Jersey, Ralph Egelston, Fultonville; Brown Swiss, Stewart Benedict, Massena; Holstein, Ronald Colton (representing Colton Bros.) Dalton. Standing: Guernsey, Vance Roby, Ionia; and Ayrshire, Arthur Nahrwold, Middleburg. To qualify for the award, each dairyman had to have at least 50 percent of his milking herd sired by NYABC bulls, and 75 percent of the herd bred through NYABC during the past year.

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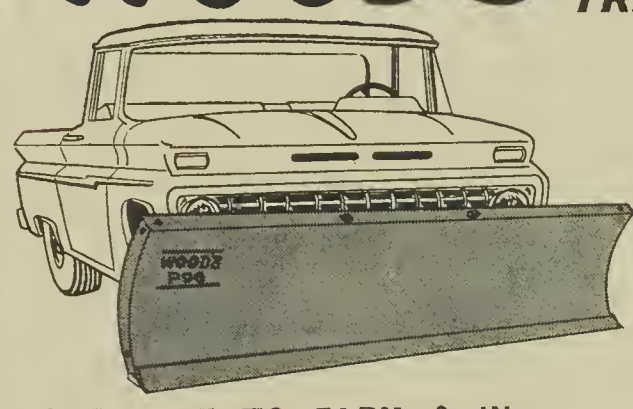
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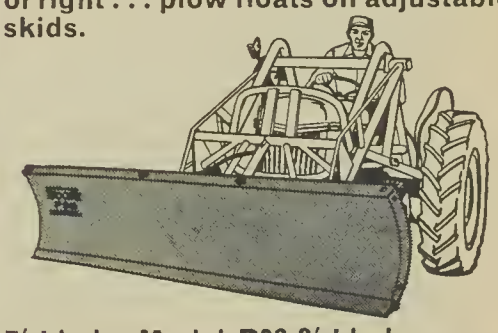
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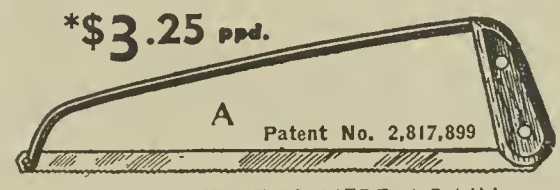
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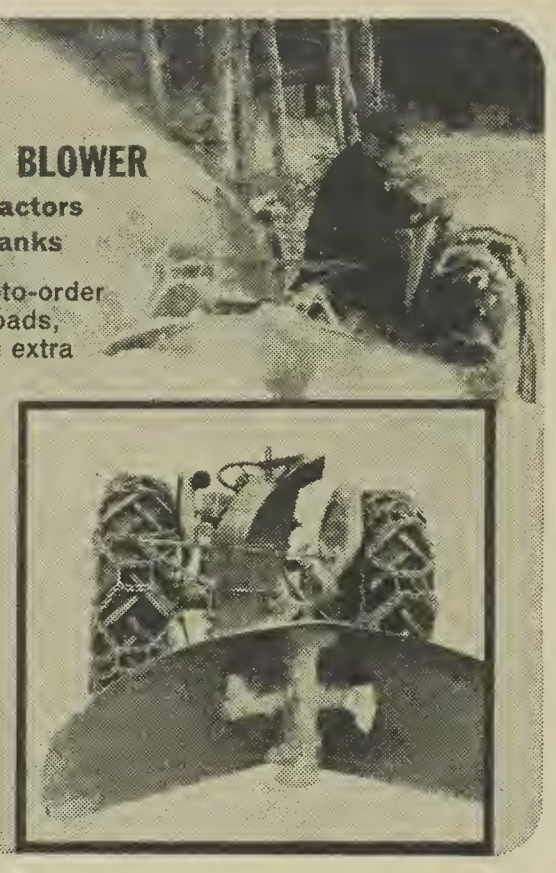
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John Fairbairn checks his DHIA record book, keeps close watch on each cow's performance.

by Bob Cudworth

SMALL FARM - BIG PRODUCTION

EVEN THOUGH farms are getting bigger, John Fairbairn feels he can hold his own with 20 good milkers and still have a profitable operation.

This well-known dairyman has operated his 106-acre farm at Arkville, New York, in masterful fashion for some 30 years, with a milking herd of about 20 purebred Holsteins.

He had the first 600 pound fat herd in Delaware County, as well as top herd in State HIR in the 15 to 30-cow class for two years running, is active in most of the farm organizations, and has raised and put three children through college. His highest herd fat average has been 639 pounds on DHIA, 695 on HIR. He credits careful attention to many practices for being able to crack the 600 fat mark.

Quality Before Quantity

John is a true exponent of the "quality rather than quantity" theory. He started with purebred Holstein calves and heifers when he first came to the farm, and has used his DHIA records for 30 years.

This farm at 2,000 foot elevation is actually in Ulster County, but so close to Delaware County that his DHIC and other records are kept there. And even though much of the pasture and meadows are hillside, they are improved. The 40 acres of pasture (birdsfoot trefoil and white clover) are rotated. There are 30 acres of meadow and corn ground.

He feeds heavily on grain — about 32 pounds of a 16 percent protein ration to his top cows in winter. He believes in feeding hay nearly all summer, and often puts molasses on the hay, too.

John is a real "bug" on careful breeding and good cow health. That's probably one reason why his son John is now a practicing veterinarian in the nearby Margaretville-Roxbury area. His two other children are Mrs. Gail Hillriegel, who teaches home economics at Jefferson Central School, and Evelyn Fairbairn, who is studying for her master's degree at Penn State preparatory to going into some branch of education.

Herd Classified

One reason John has always stayed with purebreds is because the available records show the performance of an animal's ancestors, and what can be expected from a new heifer. He also has his herd classified regularly, and is a firm believer in cow type. "A cow has to have such characteristics as good legs and feet for long life, and the other features associated with good type are absolutely essential for high production," he insists.

"Classifying is another tool for breeding a better cow. Yes, good classification can bring a possible higher price if you are selling cows . . . but this is actually only a short-term benefit. And remember, a fair or lower classification can actually hinder if you are selling cows; you have to go deeper than the price you get for a cow."

Selects Bull Type

He selects bulls for type, too, through his artificial breeder services. He has had one cow that produced over 200,000 pounds of milk in her lifetime, and several have exceeded 100,000 pounds. But he would like more of them, and is paying considerable attention to developing cows that will stay in the herd longer.

He finds that his cows cull themselves out of the herd for low production quicker than anything else. He doesn't have set figures that first-calf heifers must achieve in their first lactation; he usually gives a cow a second chance if her background warrants it. And he knows almost precisely when her background does warrant keeping her, because he has raised all his own replacements for 20 years.

One thing John is convinced has cut down cow injuries is the use of rubber mats in the stanchions. He's had them for three years, and feels that they are well worth their cost in fewer injuries and keeping cows off the cold floor in winter.

He has had his herd on the mastitis control program since it started in New York, and was one of the first to participate in the State's Bangs program.

"At one time there were many dairies up and down this road," John pointed out, "now there are only three. But I'm convinced I can hold my own with 20 good milkers instead of going bigger. And as long as my health holds out well, that's what I'll continue to do."

BETTER BEEF

AT LOWER COST

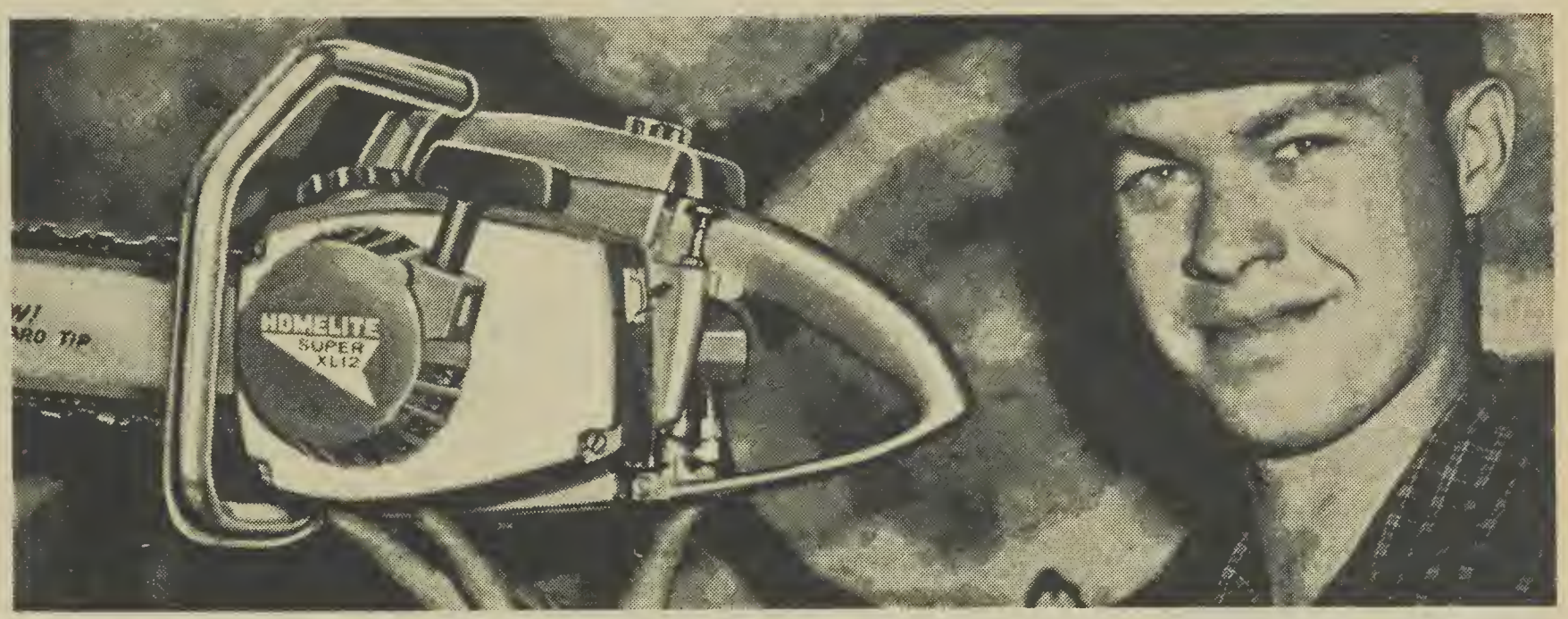
The housewife's increasing interest in leaner cuts of meat is one very good reason for the research being conducted at The Pennsylvania State University on raising dairy bulls for beef.

The dairy cattle feeding experiments showed that it is possible to feed a bull up to 1,000 pounds in 25 fewer days than with a steer, and up to 800 pounds in 34 fewer days.

"Feeding bulls for beef is a fairly common custom in many countries," says Professor Thomas B. King of Pennsylvania State. "The time saved can make a significant difference in the cost of feeding."

Professor King found that bulls gain more rapidly, and use their feed more efficiently. He feels that a potential of 380 pounds of total digestible nutrients can be saved in feeding a bull as opposed to a steer — which can amount to almost $14 per animal. Bull meat contains about 3 percent more lean, and there is a higher percentage of desirable cuts.

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TILT-UP STORAGE

Paul Westheimer of Schoharie, New York, recently completed a tilt-up concrete storage and a separate packing building, both for carrots. The storage is 64′ x 94′ x 20′ high and the packing area is 40′ x 85′ x 10.5′ in height.

Vegetable crops on this farm in 1964 included 65 acres of carrots, 35 of parsnips, 30 of spinach, and 80 acres planted to peas. In addition, there were 80 acres of field corn and 90 of wheat.

Paul and his father Julius have raised vegetables for many years, but the new facilities will enable them for the first time to have a better labor distribution because they can now wash and package for retail right from harvest season until mid-March. The common storage used previously would hold carrots only up to December.

The new storage is thermostatically controlled to hold temperatures within a range of 31° to 33°F. by the use of two 20 h.p. compressors powering the refrigeration system. Insulation in the floor consists of 2″ STYROFOAM; walls have a layer of 4″ of the same material. The system is designed to hold relative humidity within a range of 85 to 95 percent.

More Employment

The new facility is offering employment to 15 to 20 people for a period of about six months in the grading shed. No migrant labor is used in this operation; all employees are from that area, including high school students who hand-weed spinach and carrots in the summer.



Root-crop storage at right, packing building at left on the Westheimer farm. Note forms for pilasters at joints of tilt-up sections.

Speaking of weeds, Stoddart solvent is used as an herbicide on carrots and parsnips, Vegadex on spinach. The latter can be erratic in performance depending upon moisture conditions, but Paul lays irrigating lines before applying the weed killer so he can immediately put on the amount of water required to make the herbicide most effective.

"I wouldn't attempt to grow vegetables without irrigation," says Paul. Normally, all vegetable crops except peas are given extra water, but in 1964 the peas were also irrigated. On this crop, giant nozzles are used that can cover as much as three acres per nozzle. On the smaller crops, however, smaller sprinklers are used so a finer spray can be applied. One hundred of these smaller sprinklers put out the same amount of water per hour as just one of the "big guns."



Rafters are laid out and assembled before being placed in position on top of wall formed by panels. It takes a powerful lift to put panels of this size in position!

At harvest time carrots and peas move from the digger into pallet boxes that each hold 23 bushels; these boxes are stacked 5 high in the storage with an electric fork lift. Paul prefers pallet boxes with sideboards running in a vertical direction because he finds carrots and parsnips bruise as they slide or roll across cracks between horizontal sideboards.



Our man will help you plan...

Electricity lightens farm chores . . . and raises farm profits. 8¢ worth of electricity can save $8 in farm labor.

If you're considering expansion involving new farm structures, you'll want to be sure they are designed properly to take advantage of all modern materials handling methods that will save time and money on farm chores.

Call our nearest office—and our representative will be happy to help with any of your farm electrical projects or problems. There's no charge or obligation.

You'll farm better—
ELECTRICALLY!

NEW YORK STATE ELECTRIC & GAS CORPORATION

A farmer, when asked by a passer-by how many pigs and turkeys he had, decided to give the young man a hard time.

"Between them, they have 40 eyes and 68 feet."

How many pigs and turkeys did the farmer have?

— Gilcrafter

Dates to Remember

December 6-10 - Annual Convention, National Junior Vegetable Growers Association, New Orleans, La.

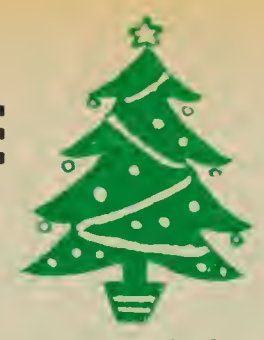
December 6-10 - American Farm Bureau Federation Annual Meeting, Philadelphia, Pa.

December 7 - Dedication of Sturtevant Hall, Seed Investigation Facilities, New York State Agricultural Experiment Station, Geneva, N.Y.

December 7-8 - Annual Cornell Seed School, New York State Agricultural Experiment Station, Geneva, N.Y.

December 8-9 - 4-H Baby Beef Show and Sale, Fair Grounds, Trenton, N.J.

FIRST CHRISTMAS TREE



by Vincent Edwards

HERE'S THE sixty-four dollar question for the 1964 holiday season: when and where did the first Christmas tree appear in an American home?

For a long time it has been taken for granted that a young German immigrant, August Imgard by name, set it up in his brother's dwelling at Wooster, Ohio, in the Yuletide of 1847. The story has been told over and over how Imgard, missing this essential part of the celebration in his native land, went out to a nearby woods, cut down a spruce, and bringing it back to the little home, created a sensation throughout the Ohio community.

For ornaments he cut decorations out of paper, and to the topmost branch he fastened a big shiny star that a local tinsmith fashioned out of this metal. Of course, Imgard's nieces and nephews danced in glee when they saw the lighted tree, and the spectacle made his name known to all the neighbors who came streaming in, day after day.

August Imgard's fame for this pleasant enterprise has come down to the present. In 1938, when a special lighting festival was held in Cleveland, he was given credit for being the pioneer of the American Christmas tree.

Another Record

Imgard may have done all the happy things claimed . . . possibly he did . . . but there is a record of an even earlier tree than this. According to the latest available data, the honor of introducing the first Christmas tree to the New World rightfully belongs to a Harvard professor, Charles Follen. It was set up in his Cambridge, Massachusetts, home in 1832 for his little two-year-old son, Charles Junior.

Charles Follen was one of the most distinguished scholars and thinkers of his time. A champion of democracy and an idealist, he had been forced to flee Germany for espousing the cause of the student fraternities in their struggle for political freedom. Coming to the United States in 1824, he shortly received an appointment to the Harvard faculty, and became America's first professor of German. Later, he joined the Abolitionist movement, and followed it through with such sincerity that he lost his teaching position.

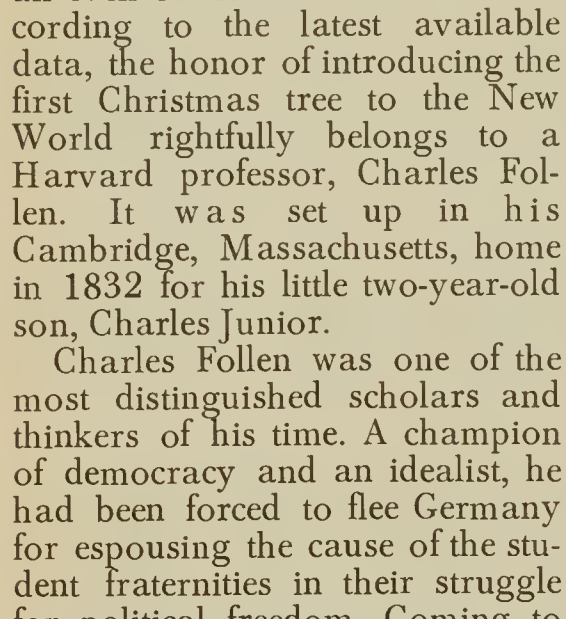
Reliable Witnesses

Follen's rightful claim as pioneer of the American Christmas tree seems clearly proved by two reliable witnesses. One was his wife, Eliza Cabot Follen (a member of the famous Cabot family of Boston); the other was a famous English writer, Harriet Martineau.

In 1836 Miss Martineau made her celebrated tour of America, which she described in her book, "Retrospect of Western Travel." When she came to Boston she was a guest at the Follen home in Cambridge, and as it was during the Christmas season she had a chance to see the brightly-illuminated tree, which she told about with considerable delight. The idea of celebrating Yule in this way, while familiar to many Germans, was still such a novelty to English and Americans alike that it made a deep impression on all who saw it.

In her biography of her husband, published after his death, Mrs. Follen establishes the exact date as to when these Christmas tree celebrations were started by Professor Follen. She refers to the forthcoming visit of Miss Martineau with this note: "It was at the lighting up of his little boy's Christmas tree that Dr. Follen hoped for the presence of our friend (Harriet Martineau). Every Christmas since Charles was two years old his father had dressed a Christmas tree for him, after the fashion in his own country."

Unless new evidence can be dug up proving that an earlier tree than this was set up, it would seem that Professor Follen, rather than August Imgard, is entitled to all the fame and renown that should go to the pioneer of the American Christmas tree.



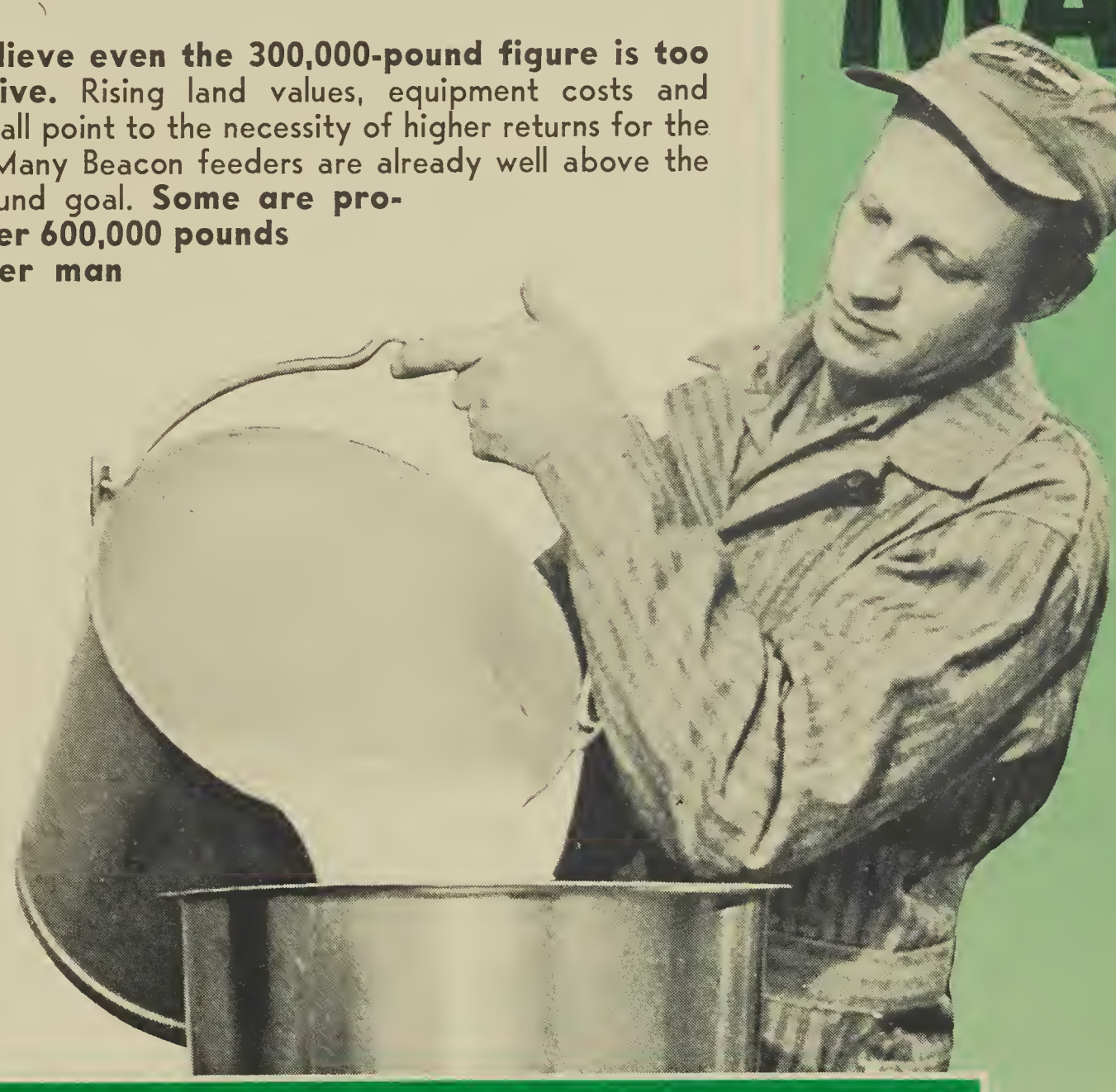
"You didn't say take a bath. You just said go get in the tub."

More emphasis is being put on milk production **per man.** This is good, for college studies of commercial dairy farm business records show that a 51% higher milk output per man can bring a **91% increase in labor income for the operator.** Consistently, dairy farms with high milk output per man enjoy higher rates of labor income.

What should be your goal for milk output? Not long ago 200,000 pounds per man per year was considered good. That figure is now obsolete, and 300,000 pounds is more commonly used.

We believe even the 300,000-pound figure is too conservative. Rising land values, equipment costs and wage rates all point to the necessity of higher returns for the dairyman. Many Beacon feeders are already well above the 300,000-pound goal. **Some are producing over 600,000 pounds of milk per man per year.**

LET BEACON HELP YOU MAKE MORE MILK PER MAN



Can Beacon Help You ?

To help you increase your milk production per man, Beacon has a fourfold program. We offer

1. High energy milking rations to sustain maximum production.
2. Free flowing pel-ets for bulk, milking parlor and other labor saving installations.
3. Beacon's Roughage Analysis Service and Beacon Dairy Feed Programming to help every cow produce to her full potential.
4. Special feeds for special needs.

Start now to increase milk production per man on your farm. Call your Beacon dealer or Beacon Advisor today.

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Headquarters: Cayuga, N.

CHANGES IN FARM TAX REPORTING

by Robert S. Smith

Professor of Form Monagement, Cornell University.

UNLIKE MOST OTHER taxpayers, farmers won't see the results of the 1964 income tax changes until farm returns are due early in 1965. The new tax rate did not have an immediate effect on farmers' cash positions last March, as was the case with all taxpayers whose income is subject to withholding. However, when farmers file their 1964 returns, the reduced rate will apply to all of 1964, and will materially affect the amount of income tax due.

Reduced rates are the most important changes affecting farmers and non-farmers alike, but other important changes have also been made. Changes in the rules for the minimum standard deduction and tax benefits for older persons will affect many farmers. The new income averaging provision will receive much attention, but will benefit relatively few farmers. Changes in the investment credit rule will benefit many farmers but will result in more complicated calculations.

Rate Reductions

A direct comparison of the 1963 and 1964 tax rates can be made if we assume a farmer with a wife and one dependent child had taxable farm and non-farm income of $8,000 in 1963, and will have the same in 1964. Taxable income is the final tax figure just before taking exemptions and deductions. On the 1963 returns, this was the entry on line 9 of form 1040.

	1963	1964
Taxable farm and non-farm income	$8,000	$8,000
Itemized Deductions	850	850
	$7,150	$7,150
Personal Exemptions ($600 x 3)	1,800	1,800
	$5,350	$5,350
Tax (using tax schedule)	1,144	950
Net Tax Reduction	$ 194	

Under the 1964 changes, provision is already made for a further reduction in 1965, amounting to $20 for the above farmer.

New Standard Deductions

Under the new law, the taxpayer has three choices in calculating and taking his deductions from taxable income. The three can be shown as they would affect a farmer with $5,000 taxable income, $550 of itemized deductions, and four exemptions.

In this case, the new standard deduction would be the taxpayer's choice. The new method favors taxpayers with relatively low incomes, or large families, or low itemized deductions, or a combination of these things.

It should be pointed out that under the new law some items formerly allowed as itemized deductions are now eliminated. This list includes auto licenses, drivers licenses, as well as taxes on cigarettes, tobacco and alcohol.

Benefits for Older Persons

Older people receive special benefits under the new income tax law. These benefits include partial exclusion of gain received on sale of a residence, increased medical deductions, and special retirement income credit. The new standard deductions will also be of special benefit to people over 65 because of an extra $100 on the deduction.

Farmers over 65 considering retirement will be especially interested in the new rule on sale of a residence. The rule says that any taxpayer 65 or over may sell his residence and exclude all of the gain if the price is less than $20,000. If the price is over $20,000, the excludable gain is calculated as follows:

$$\frac{\$20{,}000}{\text{Sales Price}} \times \text{Profit} = \begin{matrix}\text{Amount}\\ \text{excluded}\\ \text{from taxable}\\ \text{income}\end{matrix}$$

On a farm, the residence normally represents only a portion of the sale price, so it has to be treated separately. Better check with a tax expert or accountant for all the details.

Method	Calculations	Amount of Deductions
1. Itemized deduction	Sum of allowable deductions	$550
2. Old standard deduction	10% of taxable income	500
3. New standard deduction	$200 plus $100 per exemption ($400 total)	600

Income Averaging

The new income averaging provision is one of the most widely publicized changes in the Internal Revenue Code for 1964. Income averaging is designed to ease the income tax burden on taxpayers whose incomes fluctuate widely from year to year or period to period.

Income averaging is complicated, and only fluctuations of considerable magnitude are subject to the new rule. The averaging procedure starts with taxable income. Capital gains are not subject to averaging, and where they exist, taxable income has to be adjusted before the averaging procedure takes place. This adjustment is



itself a complex one.

Assume a farmer had an average taxable income of $6,000 for the four years just prior to 1964, and all of this was ordinary income. In this case, his taxable income for 1964 would have to exceed $12,000 before any benefit resulted from the new income averaging provision. The procedure for averaging is too complicated to illustrate in the space available.

This example merely attempts to show that only those farmers whose incomes fluctuate widely at a fairly high level are going to benefit from the new income-averaging provision. The exclusion of capital gains will make the procedure even less attractive to many farmers . . . especially to dairy farmers, who have a significant amount of capital gains income each year. However, some fruit and vegetable producers may find the new provision helpful.

It seems safe to conclude that only a handful of northeastern farmers will benefit from income averaging. For the great majority it will continue to be of greater importance to even out yearly variations in taxable income by practicing year-end tax management.

Investment Credit

The investment tax credit has resulted in tax reductions for many farmers in the past two years. The calculations, however, have seemed complicated to many. Calculations necessary on *1964* returns will be even more sticky as a result of changes in the law, but the changes will simplify investment credit calculations *after* 1964. Under the new law, the basis of qualifying property purchased after December 31, 1963, is not to be reduced by the amount of investment tax credit.

Example #1 — Old Requirement
$1,000 new machine, 10 yr. estimated life

Investment credit =	7% x $1,000 = $70
Reduction in Basis =	70
Amount to be recovered by depreciation (adjusted basis)	$ 930

Example #2 — New Requirement
$1,000 new machine, 10 yr. estimated life

Investment credit =	7% x $1,000 = $70
No reduction in basis	
Amount to be recovered by depreciation (basis)	$1,000

The reduction in basis rule is also rescinded for property purchased prior to January 1, 1964, on which investment credit was taken and the basis reduced. Thus reduction in basis previously taken is now to be restored. In the above example #1, $70 should now be added back to the basis of the machine, assuming it is still in operation.

This means that to bring the depreciation schedule of a farm taxpayer up to date, adjustments will have to be made in the basis of each machine on which investment credit was properly taken in 1962 or in 1963.

The rules have not been changed relative to qualifying property. Depreciable personal business property . . . farm machinery but not livestock . . . makes up most of the farm property which qualifies.

Although it has been well established that some real property also qualifies for investment tax credit, rules and interpretations still seem foggy on some items.

Other Changes

No attempt has been made to discuss all the changes in the 1964 law affecting farmers, but two others deserve comment. Gain on the sale of depreciable real estate (farm buildings) has been treated as capital gain in most instances in the past. In the future, such gain may be treated as ordinary gain where the taxpayer was taking depreciation over and above straight line.

In sales of farm or other property on a contract basis, the sale is sometimes made with no interest or very low interest. In reality, the interest has often been included in sale price in order to increase the capital gain and decrease ordinary income for the seller. A new rule says that where interest is "unrealistically low" in such transactions, Internal Revenue may deny capital gain to the extent of realistic interest.

Year-End Tax Management

This is the time of year when tax management really pays off. Good farm managers have established the habit of special tax planning in November and December. An estimate of the "tax-bite" for the year should be made in time to allow for adjustments in income and expense at the tail-end of the calendar. Taxable income can be increased for 1964 by selling crops or livestock; it can be reduced by purchasing next year's fertilizer or other supplies. Or it may be to your advantage to delay sales until early in 1965.

The objective is to reduce fluctuations in taxable income from year to year, to use up all available exemptions and deductions, and to avoid high-bracket tax rates. It should be remembered that 1965 tax rates will be a little below those for 1964.

None of the tax changes discussed makes tax management less important. As farm businesses get larger and tax regulations more complex, the importance of tax records, tax reporting, and tax management becomes greater.



"Are you smoking more now but enjoying it less?"

Right now is the best time to trade in your old worn-out chain saw for a brand new long-life Pioneer! Your Pioneer dealer knows the local chain saw market best, and is in a position to offer you the most money for your old saw. And remember, you can't buy a better chain saw. Each of the five new Pioneer models had been tested by the pros. Read what they have to say about Pioneer!

PIONEER HAS A SAW FOR EVERY JOB!
Try the compact, all-purpose Pioneer 450 for farm, suburb and sports. The Pioneer 550 is a semi-professional chain saw especially designed for farm and pulpwood use. Rated the best professional saw for pulpwood and general logging in its price and size class is the Pioneer 650. Pioneer's most powerful direct drive chain saw is the 750. And where real lugging power is a must, here's the Pioneer 850 in standard 2 to 1 gear ratio or 3 to 1 gear ratio.



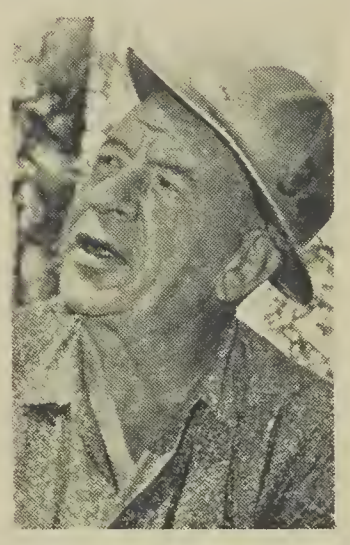
Robert Shamion, Iron River, Mich.
"The 450 is the finest limb trimmer I've ever hod. Clean up is eosy with the 450 Pioneer."



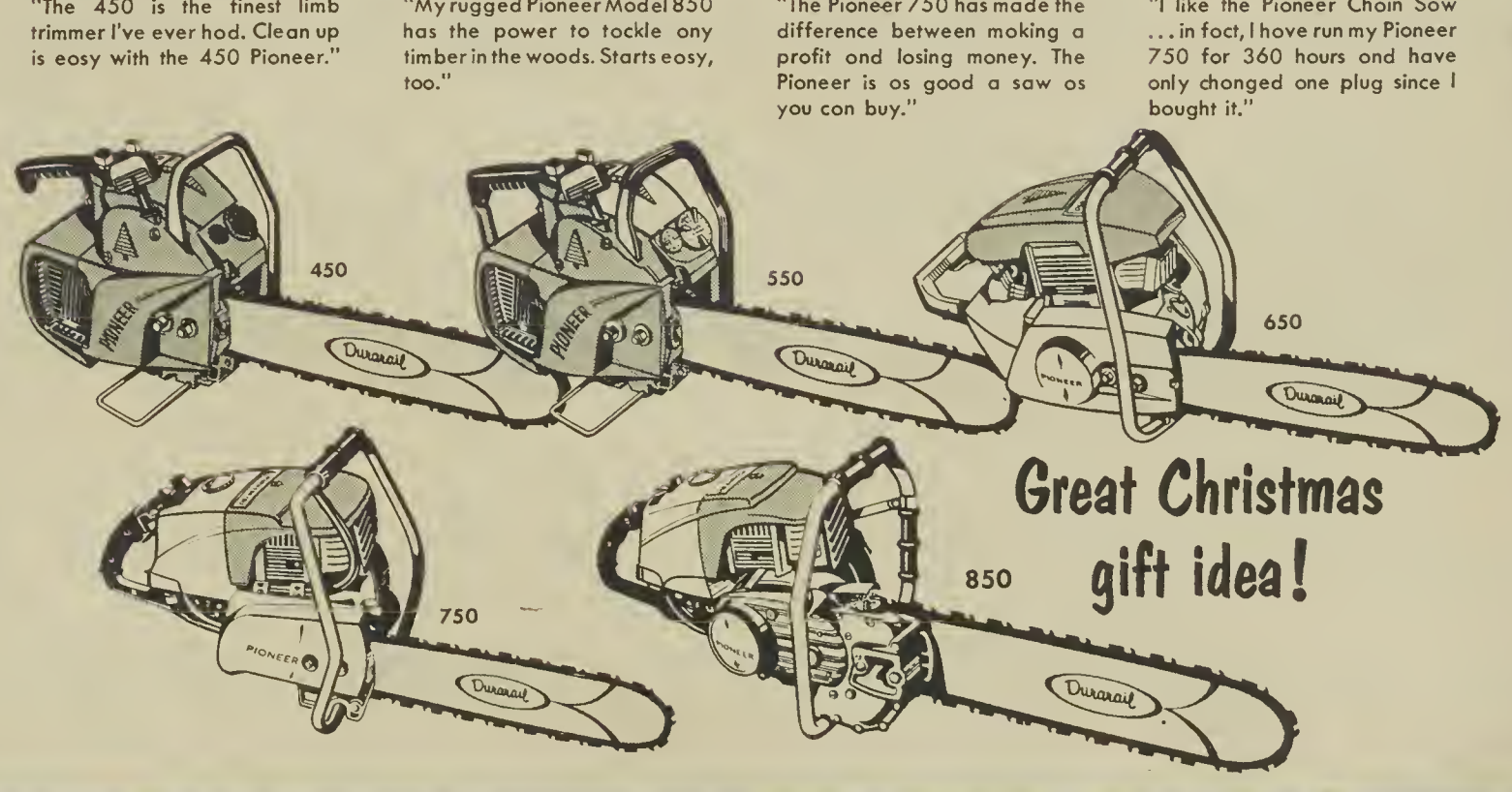
Rudy Soders, Coos Boy, Ore.
"My rugged Pioneer Model 850 has the power to tockle ony timber in the woods. Starts eosy, too."



J. D. Blockwell, Strong, Ark.
"The Pioneer 750 has made the difference between moking a profit ond losing money. The Pioneer is os good a saw os you con buy."



Jess L. Borr, Portlond, Ore.
"I like the Pioneer Choin Sow . . . in foct, I hove run my Pioneer 750 for 360 hours ond have only chonged one plug since I bought it."



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GIVE YOURSELF A TREAT

Come on our Caribbean Cruise

Everyone who has gone on one of our American Agriculturist Caribbean Cruises has returned feeling that he or she has had just about the most wonderful trip in the world. There is something about cruising in the blue Caribbean, from one beautiful tropical island to another, with sunshine, flowers, and new and strange sights on every hand, that is hard to match elsewhere.

Next February, American Agriculturist and the Rural New Yorker invite you to come with us and enjoy all the pleasures of a delightful vacation in the lands of eternal summer. Our ship will be the luxurious Queen of Bermuda, completely air conditioned and with smart, spacious staterooms, each having private bath and ample closets. You will greatly enjoy the marvelous food, beautiful lounges, and broad, sunny decks.

Life on shipboard is fun, with plenty of entertainment, good company, and a wonderfully relaxing atmosphere. In charge of our party will be our very competent tour directors, the Travel Service Bureau of Needham, Massachusetts, and they will look after us from start to finish.

Choice of Ports

As an added attraction of our 1965 West Indies Cruise, we have selected a sailing which can be boarded at New York on February 20, or at Fort Lauderdale on February 23 for those of you spending the winter in Florida. The ship returns to Fort Lauderdale on March 7 and to New York on March 10. Also, passengers boarding at New York will have a chance to join optional sightseeing tours of Florida during the two stopovers at Fort Lauderdale.

Next year's cruise includes stopovers at six of the most fascinating islands in the Caribbean. Our first port of call is **Barbados,** most English of the West Indies Islands. Rimmed with silvery beaches, it is a land of sunshine tempered by the tradewinds. One thing you will surely want to do here is sample the delicately prepared flying fish for which Barbados is famous throughout the world.

Trinidad's peoples are of every nationality, and because of its truly cosmopolitan air, this island is one of the most interesting spots imaginable. We will enjoy its mile upon mile of palm-fringed beaches and scenic, mountainous country.

St. Vincent is an island of commerce and agriculture, not heavily dependent on tourist trade. For this reason, it is an unusual and unspoiled vacation spot. Its Botanical Garden is the oldest in the West Indies, and Captain Bligh's breadfruit tree still flourishes there.

Guadeloupe is a charming French island with magnificent tropical vegetation, beautiful beaches, and sparkling blue water. The courtesy and hospitality of the people are proverbial, and colorful Creole costumes are still worn in the country areas.

St. Thomas is best known of the Virgin Isles. Its capital and harbor city, Charlotte Amalie, stretches upward from the sea to beautiful hills overlooking the ocean. Here is a real shopper's paradise! Narrow lanes are lined with fascinating shops where you can find all sorts of bargains, duty free.

Our first view of **San Juan, Puerto Rico,** is the old historic fort, El Morro, standing guard over the harbor entrance. Puerto Rico has a background of 400 years of Spanish culture and so is "foreign," although a part of the United States. Truly, the exotic spell of the tropics is here, and our sightseeing will show us expansive white sand beaches, lovely old villages, and colorful native life.

This brief summary cannot begin to tell you of the fun you will have or all that you will see on this Caribbean Holiday. For further information, fill out the coupon on this page, and you will receive a free copy of the illustrated itinerary with a list of the staterooms available and the cost of each. You'll have no regrets if you go along with us on this tour. You'll never believe a vacation could be so wonderful!

Mexican Tour

There is still room for a few more people on our tour to Mexico, January 10-30. Make your reservation at once if you want to join this tour group.

Mr. Gordon Conklin
Box 367-T
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Please send me, without obligation on my part, the following tour itineraries:

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If Lime Crest Barn Calcite is not available in your area, send us the name of your feed or farm supply dealer . . . we'll make every effort to see that he's supplied.

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SHOULD I KEEP HENS OVER?

Dean R. Marble of Cornell University has published some information on whether it pays to keep hens over for a second go 'round in production, drawn from pullet and hen flocks in the New York Random Sample Test. A total of 44 different pens of 50 birds each were held in production after the completion of the pullet year.

The comparisons are based on considering the first 12 months of production the "pullet" year, ending 500 days from the date of hatch. The "hen" year includes the 13th, 14th, and 15th months of production, the next two months in which they were force-molted, and the ensuing months after coming back into production. Birds were force-molted at the end of the 15th production month and returned to production two months later. Here's what the results show:

Egg Production — Hen year production showed a 23 percent decline from that of the pullet year. On an individual entry basis the smallest decline was 15 percent and the greatest 36 percent. As might be expected, flocks with the highest first year production were the best choice for holding over for a second year.

Egg Size — Pullet flocks produced 73 percent of their eggs grading large or above, whereas the same flocks of hens averaged 95 percent large or above.

Feed consumption — The 44 entries consumed 4.8 percent less feed in the hen year than in the pullet year.

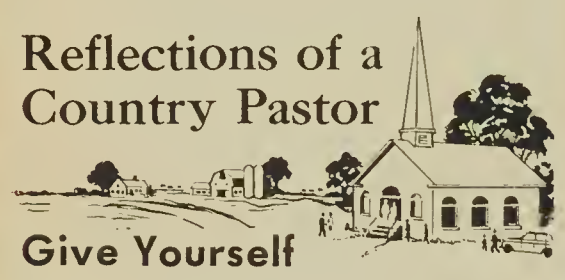
Mortality — The mortality in the second year of production was double that of the pullet year.

Egg quality — Shell quality and albumen quality showed a gradual decline during the pullet year of production, and reached serious proportions in the 13th, 14th, and 15th months of continuous production. Force-molting restored egg quality to satisfactory levels, but the decline in quality was even more rapid in the second year of production. Blood spot incidence was 5 percent for the pullet flocks versus 7 percent for the hen flocks.

Dollars — In all years the value of eggs produced was greater for pullets than hens. However, the hen flocks produced a slightly higher net income over feed and flock depreciation costs than did the pullet flocks, even when no premium was allowed for extra large eggs. Holding some high production flocks over for a second year of production can apparently be profitable, but Dr. Marble cautions that many things should be considered by individual poultrymen before making a decision.

Poultrymen who are presently holding their laying flocks for 15 to 18 months of production are in many instances making a larger net income over feed and flock depreciation cost than they would if they force-molted the birds and carried them for a full second year. The problems of poor shell and albumen quality can be serious in the latter portion of the 15 month of lay program or in the terminal months of the hen year system. These egg quality problems with older birds definitely favor the use of all-pullet flocks.

Reflections of a Country Pastor



Give Yourself

WHO GIVES himself with his alms feeds three; himself, his hungering neighbor, and Me."

This short verse from an old poem holds an up-to-date truth. It's an emphasis more needed today than ever before.

When getting seems to be the prevailing motive, giving needs increased emphasis — especially giving self with our services. A personal interest in one's job or profession exceeds mechanical or legal perfection. Adding an unexpected detail or donation beyond the agreement, giving a plus-quality to your services, does feed oneself. It enlarges the heart, increases satisfaction, gives a lift to the soul. Give yourself! You're bigger and better for it.

Our hungering neighbor often needs more than financial help, food, or clothing. His heart is often hungry for cheer, encouragement, stimulation for a new try at life. We can "feed one another, as we have been fed, by the faith that gives body and spirit their bread."

"Inasmuch as ye have done it unto them, ye have done it unto Me," said Jesus to the wondering question, "When saw we Thee in need?" Why not give a service no one else can render? With all our hearts in our handclasp make Christmas a self-giving season — and do it over and over again in the New Year. — **Arthur Moody**



Your nearby McCulloch dealer offers you a special Holiday Bonus with the purchase of any new McCulloch chain saw. Choose the McCulloch saw that best fills your needs—and then pick one of the fine brand-name items offered to you at savings up to 50%.

"Regal Ware" Coffee Maker: Makes 10 cups in just minutes. Nationally advertised $13.95; HOLIDAY BONUS OFFER—only $6.65!

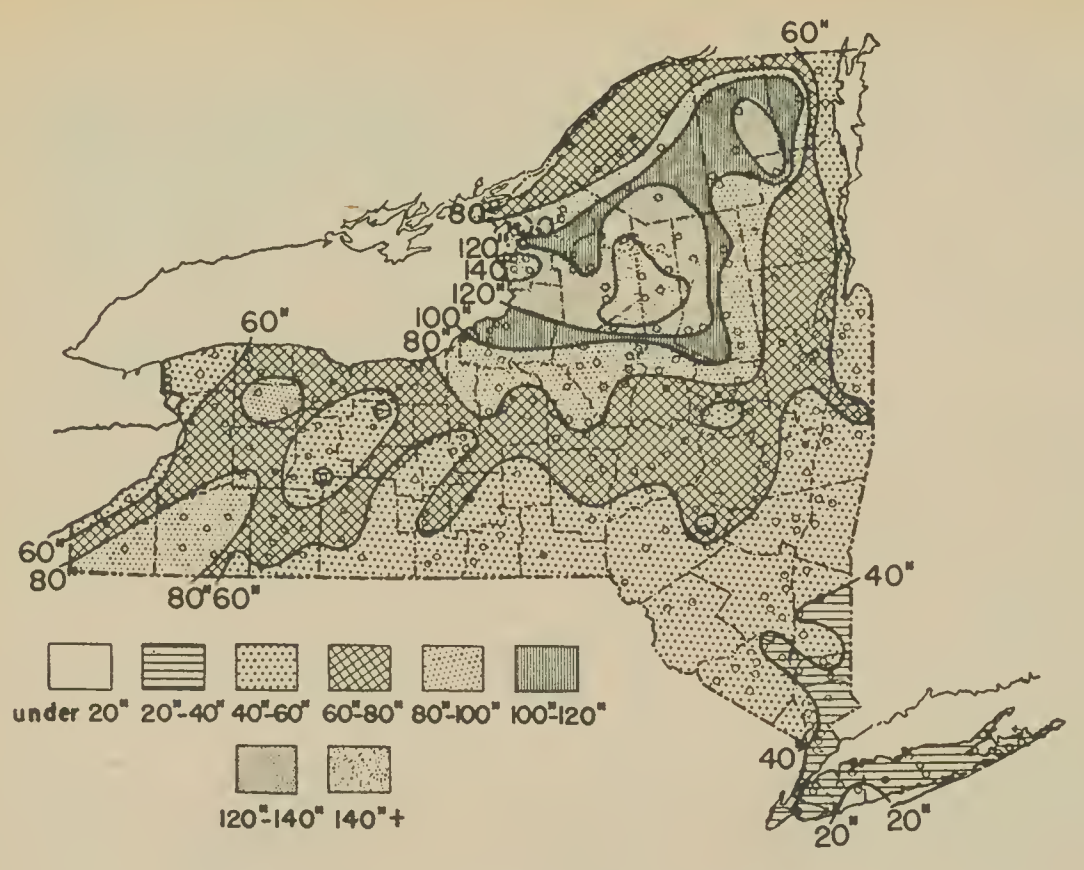
"Thermos" Camp Lantern: Burns gasoline, two-mantle design. Nationally advertised $20.95; HOLIDAY BONUS OFFER—only $11.78!

"Daisy" CO_2 Target Pistol: Safe, accurate, perfect for varmint hunting. Nationally advertised $18.95; HOLIDAY BONUS OFFER—only $10.20!

Keep your bonus selection or use it as a perfect gift for family or friends. Be sure and look for the big, yellow BONUS OFFER tag on your new McCulloch chain saw.

You get a load of BONUS FEATURES with a McCulloch chain saw! Take the McCulloch 250—it has a reboreable cylinder liner for added years of high-powered performance ...fully enclosed carburetor...all-angle cutting...weather-proofed ignition for fast starts...safe fingertip controls... and biggest bonus of all, your 250 engine can use McCulloch power tool attachments for cutting brush and digging holes. Visit your McCulloch dealer now and see the whole line of all-round McCulloch chain saws. Take advantage of this special Holiday Bonus offer on all new McCulloch saws. And remember—a McCulloch chain saw makes a mighty fine gift for the out-of-doors man on the go!

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DEPENDABLE CHAIN SAWS
LEADERSHIP THROUGH CREATIVE ENGINEERING



What's Your Mean Annual Snowfall?

Depends on where you live.

In the "snow belt" east of Lake Ontario, you can expect 140 inches or more! In southeastern New York 20 to 40 inches.

To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean!

For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

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DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
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Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTKO	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.			
Olean	WHDL	1450 kc.			

Northeast Radio Network

Ithaca, New York

BIG ISSUE REAPPORTIONMENT



by Amos Kirby

New Jersey Editor

THE REAPPORTIONMENT of the New Jersey Legislature will be one of the more important issues confronting farmers and rural people in the months ahead. This one man-one vote decision of the U.S. Supreme Court, with both the Assembly and the Senate elected on the same basis, will destroy the present county-by-county representation.

Former State Senator Wesley Lance of Hunterdon County is taking a leading part in opposing a case now in the Courts that would make it mandatory that both legislative houses be made up of representatives elected on the basis of one man-one vote. If this should happen, complete control of all legislative matters will be centered in just four counties . . . and such areas as Sussex, Warren, Hunterdon in North Jersey and Gloucester, Salem and Cumberland in South Jersey, might conceivably have just one vote.

In a recent statement, former Senator Lance pointed out that there could easily be an upset in the apportionment of road funds to the various counties. He feels that the proposed formula would remove area and replace it with population, resulting in rural areas receiving far less aid than at present.

Representation — In an interview, Senator John Hunt of Gloucester County, who is standing firm on the present setup, told me that the New Jersey Assembly membership is based on a population basis, with at least one member from each county — the more populous counties having the one man-one vote basis.

Senator Hunt feels that the makeup of the Senate should be based on some other factor than population.

Actual reapportionment may be a number of years away, but it is an important matter of concern in 1964.

Processing Crops

A few weeks ago I asked Francis Raymaley, director of the Division of Markets in the State Department of Agriculture, what the food processing situation was in New Jersey. In return, Mr. Raymaley invited me to attend the fall conference of the Food Processing Development Committee, of which he is a director.

The conference, attended by representatives of State agencies and processors, came up with some basic facts on the future of the processing industry in New Jersey.

Future — There are still undeveloped opportunities for the industry in the State; there are some new crops that can be processed, and present crops will long be in the picture. The problems that must be solved involve the grower, the Experiment Station, and processors.

Cooperation — The Experiment Station is challenged to come up with new ideas on how growers can cut production costs, and Director Leland Merrill, Jr. outlined some of the work being done at New Brunswick.

Growers' major problem (which was not injected into the discussion) is that prices paid for processing crops need to be increased to cover higher production costs.

Processors, too, have their problems, which range from in-plant costs to meeting prices on finished products from competitors . . . and what the distribution trade will pay.

Comments — My observation is that the big unsolved problem for the future of the industry in New Jersey centers around a bit more cooperation among the three groups. Growers and processors need to develop more interest in each other's problems, and to work together constructively. The Farm Bureau's Agricultural Marketing group (headed by Thomas Moore) has a sound approach to the problem and this, along with the efforts of Director Francis Raymaley, offer hope that the processing industry in New Jersey will survive and meet the needs of both growers and processors for many years to come.

Here and There

Labor — It is still unofficial, but there are rumblings out of Washington that there may be a relaxation on the use of bracceros in the Southwest. While the present law expires on December 31, 1964, there are old laws still in existence that may be used to permit the normal number of workers from Mexico to enter the United States. This would relieve the pressure on the Puerto Ricans, from whom New Jersey draws much of its labor supply.

Land Values — In talking with farmers in many parts of New Jersey this past summer, many claimed that they are ready to sell their farms and retire. Without going into what they would ask for their farms, or how serious they are on selling, I'd like to call attention to a recent report on land values. This survey (from the USDA) states that in the year ending July 1, 1964, market value of real estate continued to advance at about the same rate as in the past two years, averaging 4 to 6 percent per year . . . including New Jersey. The demand for land is on the upgrade in almost every state.

Change — The New Jersey State Horticultural Society and the Vegetable Growers Association are changing the locale of their annual meetings. Instead of meeting in Atlantic City, as has been the custom for many years, they are moving to Cherry Hill Inn, near Camden. The dates are January 6, 7 and 8, 1965. The new location is more central to the major producing areas, and this famous Inn has all the facilities that both organizations could ask.

NEWS AND VIEWS OF NEW YORK AND PENNSYLVANIA

Spencer Award — Dr. Daniel Swern, senior research investigator, Fels Research Institute, Temple University, Philadelphia, Pennsylvania, was named the recipient of the 1964 Charles F. Spencer Award. The award has been made annually since 1955 for distinguished achievements in agricultural and food chemistry; it is sponsored by the Spencer Chemical Division, Gulf Oil Corporation.

Horse Census — Harold A. Willman, professor emeritus of animal husbandry at Cornell University, is heading a "down-the-road" count of all horses and ponies in nearly 100 townships in 35 counties of New York State. 4-H clubs have helped in the program.

National Convention — The annual national convention of the Brown Swiss Breeders Association included a bus trip from Syracuse to Cornell University for a day on campus. At the dinner the subject discussed was "Propaganda for Breeder and Feeder," while a panel discussion was held on "Herdsmanship." New York State's Dairy Princess brought greetings from 40,000 dairy farmers in New York, and the convention closed with the National Imperial Sale of 60 head of registered purebred Brown Swiss.

Selling Christmas Trees? — In Pennsylvania a dealer's certificate is required for the sale of living trees or any living plant, in pots, balls, baskets or in burlap. Certificates may be obtained at no cost from the Pennsylvania Department of Agriculture, Bureau of Plant Industry, Harrisburg, Pennsylvania. No certificate is needed for the sale of cut trees.

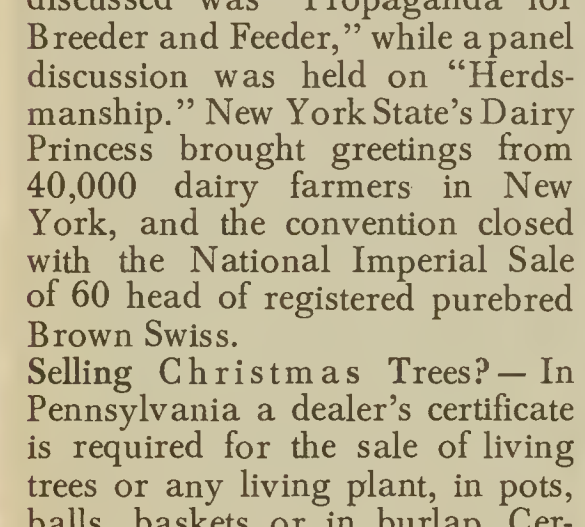
New York State Guernseys — Empire State Guernseys scored heavily at the National Dairy Congress in Iowa. The State herd placed first (the ninth time in ten years). Stuart Haskins, Auburn, a 4-H boy, showing a Senior Yearling Heifer, was first and Junior Champion of the National Junior Show, and, with two other 4-H youngsters, Nancy Lake of Lyons and Constance Marshall of Verbank, placed fifth out of 15 Junior State herds.

Officers — The new president of the Dairymen's League Cooperative Association is Lester W. Martin, a dairy farmer from Milford, New York. First vice president and assistant treasurer is Eugene J. Vandenbord, Delhi, New York. James R. Donnan, Galway, New York is second vice president and secretary. Milburn J. Huntley, West Winfield, New York, was re-elected treasurer of the Association.



Here's an architect's drawing of how part of the campus will look at the Agricultural and Technical Institute near Cobleskill, New York. Construction is already underway on what is officially designated the Dairy Barn Group and Horticultural Buildings. It's scheduled to be completed in time for the 1965 fall semester.

Said the attractive cigar-smoking housewife to her best girl friend: "I got started one night when George came home and found one burning in the ash tray."



Above: Bullville stockyard manager Clifford L. Lloyd, Jr. stands beside loaded shipping crates ready to go aboard planes bound for Italy.

NEW EMPIRE PROJECT

The Bullville, New York, stockyards of the Empire Livestock Marketing Cooperative has been bustling lately with a brand new enterprise. Crate panels are being assembled, calves are loaded into the crates and trucks haul them to meet hairline airline deadlines at the Kennedy International Airport. About six hours later they are put down in Italy where they will be fed out for veal. Importers want only bull calves between 90 and 110 pounds, prefer Holsteins, but do take a few Brown Swiss.



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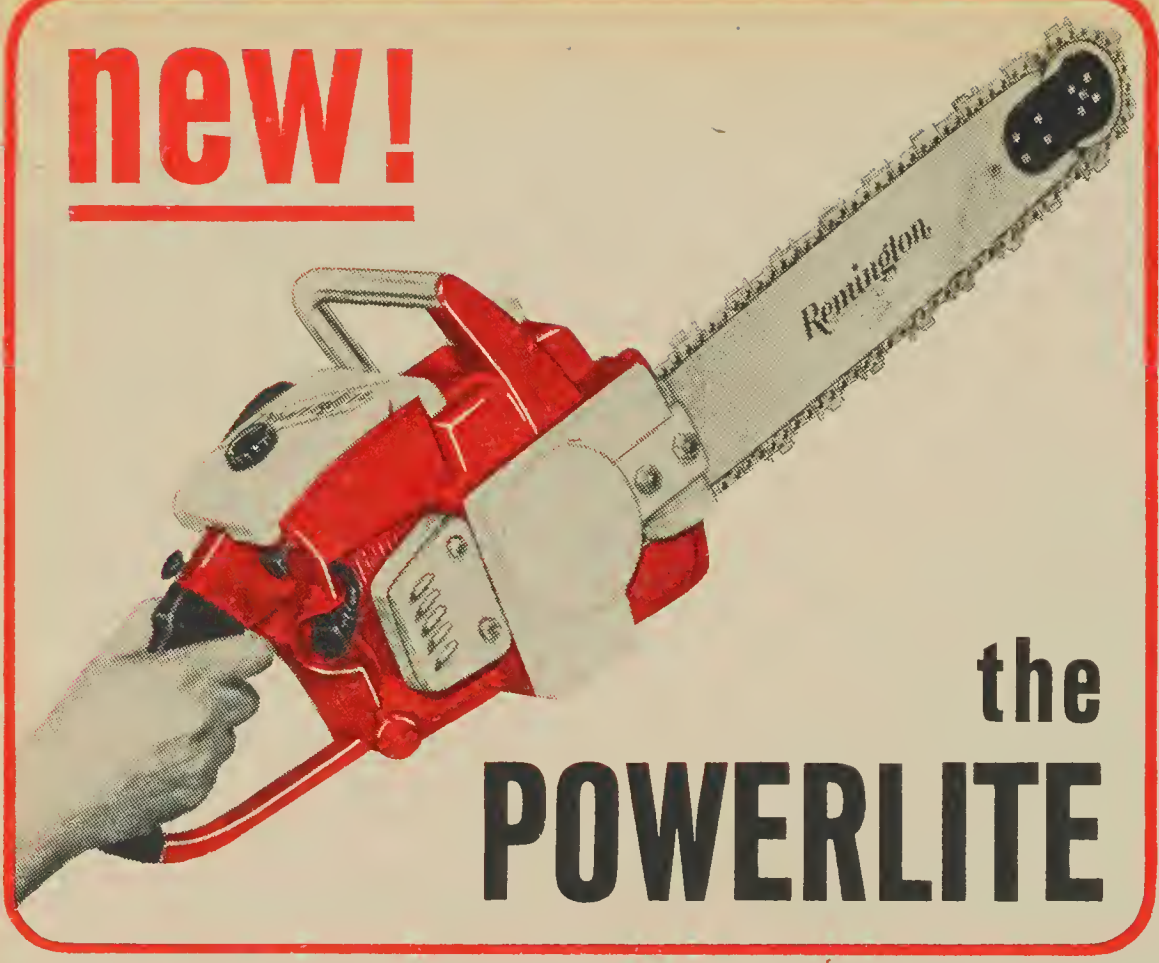
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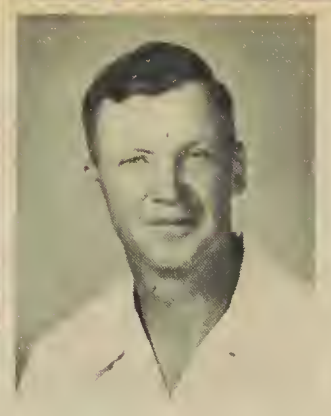
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ATTICA, George Burnison
ATHOL, Cameron & Cameron
ARCADE, M. C. & C. M. Drake
ALTAMONT, Howard L. Gage Inc.
AUBURN, Main & Pickney
ANDES, Liddle Bros.
AMITYVILLE, Purdy Lawnmower
BINGHAMTON, Wakeman's Auto Electric
BUFFALO, West Seneca Tool Rental
BURKE, Cowans Esso Service
BARNEVELD, Bakers Sales & Service
BRASHER FALLS, Boot's Saw Sales & Repair
BAYSHORE, Arthur Rauft
BATAVIA, Batavia G.L.F. Store
BROADALBIN, Carpenter & Sunderland
BRANT, Thomas Chiavetta
CAMDEN, Clyde Wesseldine
CAZENOVIA, Waterbury & Coe
CONESUS, Gordon T. Alger
COHOCTON, Edmund Appliance & Hardware
CHAMPLAIN, Raymond Bedard
CATSKILL, Bergers Sales & Service
CLINTON CORNERS, Bowman Sales & Service
CORTLAND, Cain Tractor & Implement
CLINTON, Clinton Farm Supply
CORINTH, Main Motors, Inc.
CORNING, Rice & Sons
CHESTERTOWN, Roberts Chain Saws
DOWNSVILLE, T. J. Klindt
DEFREESTVILLE, Master Equipment
DUNKIRK, Raymond Gunther
DE RUYTER, H. W. Cook Farm Service
DRYDEN, Dryden Implement Inc.
DEER RIVER, Francis Nicholl
EAST WALDEN, Master Equipment
EAST WILLIAMSON, Ralph Verbidge
ELMIRA, Keller's Saw Shop
ELIZABETHTOWN, B & H Saw Sales
EDMESTON, R. S. Hardic & Son
ELMSFORD, Stillwell Equipment
ESSEX, Lester's Service
EAST MEADOW, United Rent Alls
FRANKLINVILLE, Library Garage
FABIUS, Fabius Hardware
FALCONER, Schutts Chain Saw & Mower
FORESTBERG, Theimers Garage
FREEPORT, Freeport Equipment Co.
GRANVILLE, Scotts Tractor & Implement
GLEN COVE, Larry's Mid Island
GREENVILLE, Greenville Farm Supply
HAILSBORO, Harry Fuller
HANKINS, Sipple Service
HAVERSTRAW, Shaw-Jobson
HOBART, E. T. Van Buren
HUBBARDSVILLE, Jacob Misch & Son
HUDSON, A. J. Grabs Sons
HUNTINGTON STATION, Huntington Grinding
ITHACA, A. R. Davis
INWOOD, Long Island Lawn Mower
JOHNSON CITY, Goodrich Implement
KANONA, Larry's Saw Shop
KING FERRY, Gilling & Nedrow
KINGSTON, Power Mower Repair
KNOWLESVILLE, Knowlesville G.L.F. Store
LEICESTER, A. R. Christiano Hardware
LIBERTY, Clinton P. Tompkins
LITTLE FALLS, Slades Garage
LIVONIA CENTER, Day Tractor Implement Co.
LOCKPORT, Walter Kohl

TOWN — DEALER
LONG ISLAND CITY, Stillwell Supply
LYONS, Schleede Farm Supply
MADISON, Farm & Home Store
MARLBORO, R. C. Herman Co., Inc.
MAYVILLE, Art's Lawn Mower Shop
MEXICO, Harold Miller
MIDDLETOWN, Bellows & May
MIDDLETOWN, Lou's Repair Shop
MILFORD, Harrison Hardware
MILLER PLACE, Miller Place Service Station
MILLERTON, Scoland Farm Machinery
MINEOLA, Liffco, Inc.
MONROE, Mikes Lawn Mower Shop
MORRISONVILLE, Bernard Barber
NEW BERLIN, Pope Bros. Garage
NEWARK, Fairville Garage
NICHOLS, J. D. Robertson & Son
NINEVEH, Edward Oliver
NORTH BELLROSE, Langes Hardware & Paint
NORTH LAWRENCE, J. A. Wilber & Sons
NORTHPORT, Vernon Machine
NORWICH, Kosowsky Hardware
ONEIDA, Oneida Milling Co.
ONEONTA, East End Cattle Sales
OVID, Ovid Small Engine Clinic
PATCHOGUE, Carl's Lawn Mower Shop
PAWLING, Utters Bros.
PEARL RIVER, Pearl River Cycle
PEEKSKILL, Peekskill Lawn Mower
PENN YAN, Hayes Exchange Store
PINE BUSH, McDoles Service Station
PINE ISLAND, Roy Bros.
PLEASANTVILLE, C. V. Pierce
PORT JERVIS, Rowe-Hendrickson,
PORT WASHINGTON, Precissioneer, Inc.
POUGHKEEPSIE, Mike's Lawn Mower
FORT PLAIN, Hallsville Farm Supply
REXFORD, Rexford Small Engine
RICHFIELD SPRINGS, Beadle & Co.
RIVERHEAD, Rolle Bros.
ROCHESTER, Corey Truck Body & Equip.
ROCHESTER, United Rentals
ROSEDALE, A & F Tool Rental
SALISBURY, Matthew's Garage
SCHENECTADY, Thruway Engine Clinic
SCHUYLERVILLE, Nelson S. Pratt
SHARON SPRINGS, Edgar Handy Garage
SIDNEY CENTER, Jess F. Howes
SPECULATOR, Tracey Saw Sales
SPENCER, Simcoe's Garage
SPRING VALLEY, Clarkstown Equipment Co.
STATEN ISLAND, Trimalawn Equip. Co.
STONE RIDGE, George Von Bargen
SYRACUSE, Syracuse Farm Supply
THERESA, Pete Giltz Implement Co.
TUPPER LAKE, Ryan's Marine
TRUMANSBURG, Maurice Bowers
VAILS GATE, Vails Gate Rental Mart
VERMONTVILLE, Mac's Service
VESTAL, Vestal Tool Rental
WALTON, Russells Sales & Service
WATERLOO, Finger Lakes Equipment Co.
WALWORTH, Duells Garden Store
WATKINS GEN, Glen City Garage
WEEDSPORT, Blumer Supply
WESTBURY, Contractors Supply Corp.
WELLSVILLE, Chiavetta Bros., Inc.
WEST LEYDEN, Stanley Freeman
WESTVILLE, Wilson Farm Service
WHITNEY POINT, George White
WORCESTER, Edward Johnston

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Gayway Farm Notes

by HAROLD HAWLEY

DIVIDED OPINIONS

There have been people in to look at our new barn as it moved toward completion. One of the interesting things to us was the reaction of various people who looked it over. It is an experimental barn so we expect some things will need change. The comments we have heard have been of two kinds. Some say, "It just won't work!" Others say, "Boy, if everything works out, what a lot of labor this will save!"

It has seemed to us that these two comments, repeated over and over in various ways, pretty much typify the kinds of people there are in this life — those who are against change, and those who see opportunity and advantage in something new. I guess most of us have part of both types in us — which is a pretty good balance wheel.

Another general impression as this barn has been built is the degree of specialization among the different kinds of workmen. The plumber had his helper, as did the electrician. Among electricians, plumbers, and carpenters there was fine cooperation, but there was a pretty sharp distinction among and between them as to what was done by each.

Even the man running the back-hoe was a specialist — and a fine workman he was — but that was his job and he did nothing else. The men who put up the silos were again pretty handy at their particular job — as were the fellows who climbed all over everything to provide us some protection from lightning.

Different Kind Of Farmer

During all these months when specialists were coming and going, each doing his part of the job, we were running a variety of machines — many as complicated as a back-hoe or bulldozer — working with cows and making decisions relative to their care and housing, and doing many other jobs which are just a routine part of running a modern farm. This naturally included a bit of electrical work, a little repair plumbing, painting, roofing, machinery repair and maintenance, etc., etc.

Granted, many if not most of these jobs fall on the operator or his family, but his help has need to have enough knowledge to be useful on some of them. To have enough skills to be a semi-skilled jack of a lot of trades certainly requires a different kind of farmer and farm help than formerly.

It kind of surprises one a little to hear farm people talk about minimum wages for their help as being too high, when much of this help must have at least rudimentary skills in many fields. These same people, if they specialized just a little under a plumber, carpenter, electrician, etc., would be drawing two or three times minimum wages.

SILAGE JUICE

For the first time since we've been farming we had a lot of juices leaking from the silos this fall. This still puzzles us. Normally, we let the corn get pretty hard before we fill, figuring we can supply the cows water from other sources. This year the grain got hard — and that's all we have ever worried about.

For some reason, the plants were still way too green and juicy. Possibly it was the fact that we filled two or three weeks earlier than usual, and although the grain seemed ready perhaps the plant hadn't reached maturity. At any rate, we had the spectacle of juice running for several weeks from two silos.

There seems to be a wide difference of opinion as to how serious this is. Some have told us that at least we know the silage is going to keep well, with no mold; this much we will go along with. However, we part company with those who say all we lost was water. There has to be sugar and other food elements in this juice — gone down the drain.

Of course, had the corn been cut later the water would have been partly gone from the plant; the food values would have been greater in the first place, and no loss would have occurred. From here on, we look not only at the grain but also at the stalk. Live and learn — we hope!

Best Wishes

We wish to send holiday greetings to all of our friends — from all of us at Gayway Farm. To each of you —

"MERRY CHRISTMAS!"

GREEN EARS

One field of our husking corn is also causing us a little consternation this year. It is a surprisingly good crop for the kind of year we had, but it has a lot of soft green ears mixed with the good hard ears.

The reason is obvious. Last summer when the corn came up there were spots over the knolls which didn't come up until the rain came in mid-July. Of course, the ears on these late stalks never had a chance to mature. What to do? Crib it and hope . . . or sort

(Continued on page 27)

AA SERVICE BUREAU

SOCIAL SECURITY

The Elmira Regional Director of the U. S. Department of Health, Education & Welfare recently issued a warning to social security beneficiaries to be on the lookout for men posing as representatives of the Social Security Administration.

According to complaints, these men, traveling alone or in groups, have drugged and robbed elderly people or have, for their own purposes, elicited personal and confidential information from them.

Every official representative of the Social Security Administration carries an identification card bearing his photograph and description and will show it on request. If an alleged representative refuses to show this identification, do not let him in, but report it at once to your local police, the social security office, or the F.B.I.

REFERRAL SCHEME

"Last May we were approached by a salesman for a siding job on our farm house. Had the company he represented not been an old, established one, we never would have considered his offer but we did.

"The siding job would cost $1500 but our house was to be used for advertising purposes in this area. For each job which was done in the area we would receive $100, up to the total of $1500. This could be deducted from the company income tax for advertising and had worked out well for others with their jobs being paid for in a matter of a few months. He told us that pictures would be taken of our house before and after the work was done and shown on TV in this area, even giving us the date they would first be shown and promising us a list of the dates when they would appear. We were also promised a photostatic copy of their agreement, an insurance policy and a fifty year guarantee on the siding.

"Three workmen arrived as per schedule and, though they were not too careful with the aluminum insulation placed under the siding and it was not as heavy as what they had shown us, we considered it a good job and felt satisfied.

"However, our house is only 26 feet by 36 feet and we could have had the job done locally for $700 or $800, and I am sure I could have done it myself with the very best material for $500. When they were about to leave they asked us to sign a Customer's Completion Certificate and Authorization, which stated in part, 'We further certify that we have not been given or promised a cash payment nor have we been guaranteed any cash or other bonus or commission on further transactions as an inducement to consumate this transaction.' They stated they had to have this signed as proof that they had done the job in order for them to get their pay. We did not sign it but wrote them out a simple form stating the job had been done and was satisfactory and signed that.

"After completion of the job, the salesman came back to see us and we foolishly paid him in full. He had answers for all our questions and doubts; and taking our check and repeating all his false promises, he drove away in his Cadillac, never to be seen or heard from again.

"After due time had passed, we wrote the company but received no reply, but after a second letter we received a telephone call at which time the party calling stated that their salesmen were not authorized to make any such promises and, if what we said was true, a salesman would be losing his job. At this time I was promised a follow-up call the following week, but this was several weeks ago and we have had no more word from them."

Unfortunately, the firing of the salesman will not put any money back in our reader's pocket. We have had numerous complaints about this type of activity which is known as "referral selling." Many homeowners are deluded by this "something for nothing" promise and they sign contracts which, in most cases, obligate them to pay an inflated price for some job they would not otherwise have had done or for some purchase they would not otherwise have made. The promised commissions do not materialize, but the monthly payments are very real!

CAN YOU HELP?

Leon Miller, R. D. 2, Ashville, New York, would like to get a new spring or have one repaired for an Edison Standard Phonograph.

* * *

Keith A. Tyler, R.F.D. 1, Gouverneur, N. Y., would like to buy an old Dobro guitar with metal amplifier in top.

* * *

Mrs. Lena Johnson, Great Hill Farm, North Berwick, Maine, would like to locate sheet music or piano roll copy of "Too Much Mustard."

* * *

Mrs. Lawrence W. Fitzgerald, R.F.D. 1, Hallowell, Maine, would like to get a copy of Pictorial Review Cookbook dating back around 1931.

* * *

Mrs. Donald Sweeting, Sterling, New York, would like to obtain copies of old veterinary books on horses, also non-fiction books on "The Morgan Horse."

* * *

Mr. Paul J. Neff, Clarence, New York, is interested in finding a card game called "Bunco."

* * *

Mrs. Lauriston Hustus, R.F.D. 1, Thorndike, Maine, who lives in the Foote homestead, would like to get in touch with any relatives of John Foote or his son, Winslow, who was the originator of the Foote potato.

* * *

Gayway farm notes

(Continued from page 26)

the soft corn out? We've been doing both; picking out what we could and hoping the rest won't hurt us too badly.

I think there is a lesson to be learned here. When we started planting the moisture was adequate. By the time we finished it was getting a little dry. Possibly if I had planted a little deeper on the knolls to be sure of getting the seed down to moisture we might have had better, more uniform germination.

In all the rest of the fields the stand was the best ever. We think the fact that we separated the space between corn and fertilizer even farther than the machine was originally made to do may have prevented some of the fertilizer burn which we have sometimes had on side hills when the planter slid around a little sideways.

Scott Mayfield says: "FEED-o-METERS SAVE ME 1500 LBS. OF FEED A WEEK"



Scott Mayfield, Mgr.-Partner of the Mayfield Jersey Farm and Mayfield's Dairy Farms, Inc. of Athens, Tenn. Winner of the 1960 Premier Breeder All-American Jersey Show and 1961 National Grand Champion Awards.

"We at Mayfield Farms are currently milking about 130 head. We have been using 8 FEED-o-METERS with 4 MILK-o-METERS in our 8-stall double pit, walk-through, pipe-line parlor. My records show that the use of FEED-o-METERS gives me a net saving of 1,500 lbs. of pellet concentrate a week with the same production and labor. At the present cost of feed, this means a saving of over $2,950 per year. In my estimation, weighing and sampling regularly with MILK-o-METERS and concentrate feeding automatically with FEED-o-METERS are two sure ways to increase dairy profits."

ONLY Feed-o-Meter, in combination with Milk-o-Meter, can give you TRULY AUTOMATIC RATIO FEEDING!

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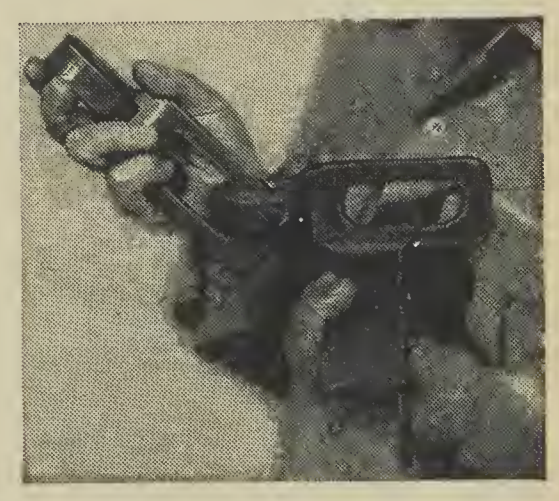
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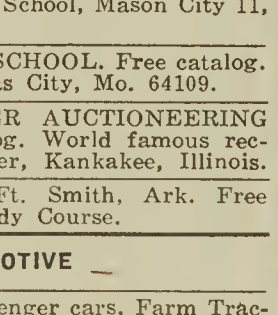
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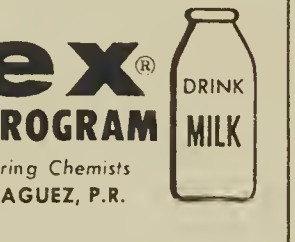
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ANYONE WHO has ever tried to locate farms or rural residences in an area strange to him knows how difficult it is sometimes to find the person he is looking for. As the years have gone by, more and more county and town highway maps have become available, and an increasing number of counties have put up markers that label each road.

There have been a number of systems used for precisely locating open country homesteads; one of the first was called the Clock System in which a city or trade center was the center of the "clock." However, this system, and the Compass System which was similar to it, had some disadvantages and are no longer used.

The East-North System may seem a bit complicated to the layman, but briefly it is tied to latitude and longitude and expresses in a decimal system any exact location. This system is similar to the Grid System being used by a number of electric utility companies to locate open country residences. This enables company representatives to locate precisely every meter and house for service calls.

Standard System

Another way of numbering is the Standard System, sometimes called the Century System. It has been used all over the world for many years. Briefly, it starts numbering at a trade center or at the beginning of a street or road and extends out into a less-populated area.

It is designed to provide a definite number of numbers per mile; in most areas 200 (100 on each side of the street or road, or a number about every 50 feet).

Ralph Denman of Ithaca, New York, invented some years ago a "Survey Meter" which he uses in his automobile as he surveys a town or county in the process of setting up a system of numbering along the principles of the Standard System. While surveying, this device (in use since 1939) allows the surveyor to assign a house number directly from the instrument reading.

Similar To City

The Standard System provides every rural residence with a number similar to that in a city. Thus, an address that once might have read "Mr. John Jones, R. D. 2, Anywhere, New York" would be changed to read "Mr. John Jones, 2304 Sylvan Road, Anywhere, New York."

After a survey is completed, it is simple for fire companies, doctors, visitors, etc. to locate anyone whose address they know or are given. This assumes they know the location of roads; strangers in the area would need a map showing the location of each individual road. Maybe it doesn't give the stranger so much excuse to visit with local residents in the process of asking where someone lives, but the numbering system is more efficient!

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Mrs. Wilfred Miller BAKES PRIZE

There was great excitement in Mrs. Wilfred Miller's home outside Lockport, New York, Tuesday night, October 27, when I phoned from the New York State Grange annual meeting in Rochester to tell her she had won first prize in the finals of the big American Agriculturist-Grange Coffee Cake Contest. After a moment of absolute silence, she remarked several times, "I don't know what to say!" And then, "My family is laughing at me."

The next morning when Mrs. Miller came to State Grange for the announcement of the winners, she was bubbling over with enthusiasm. We talked "a mile a minute," and I could understand her family's amusement at her lack of words the night before.

I learned that her prize-winning coffee cake was baked at a friend's home in Rochester on Monday, and the friend took Mrs. Miller home Tuesday afternoon so she could attend a progressive dinner and church meeting that evening. She had been in the house only a short time when my call brought her the happy news. She missed the dessert course at the dinner and the church meeting in order to board a ten o'clock bus and arrive back in Rochester at midnight.

There are four children in the Miller home — ages 22, 13, 11, and 8. Mrs. Miller says she bakes coffee cakes for Grange bake sales, church bake sales, 4-H bake sales, etc., and does some sort of yeast baking each week for her family.



American Agriculturist Home Editor, Augusta Chapman, congratulates the seven winners present at State Grange when their names were announced. In the picture with Mrs. Chapman are (left to right) Mrs. Wilfred Miller, Mrs. Marie Colburn, Mrs. Paul Huntington, Mrs. Godfrey Regetz, Mrs. Lorenzo Niles, Mrs. Max Ellithorpe, and Mrs. Amelia Andersen.

You'll find her Apricot Coffee Cake recipe in this issue.

As the No. 1 winner, Mrs. Miller had her choice of the three grand prizes and chose the Monarch Electric Range. She also gets $53 in cash ($25 from Standard Brands, Inc., makers of Fleischmann's Yeast, $25 from American Agriculturist, and a $3 entry prize from State Grange), plus grocery prizes given the ten high winners.

These grocery prizes are as follows:

From Agway, Inc.: A 5-lb. sack of each of the following flours: Cake, Bread, Quality Pastry, and Pancake Mix, also a 4-lb. sack of First Lady Buttermilk Pancake Mix.

From Penick & Ford, Ltd., Inc.: Cans of Davis Baking Powder, Cocomalt, Creamy White Swel and Creamy Fudge Swel; Swel recipe folder and Quick-Mix Charts; 1 dozen bottles of Brer Rabbit Molasses and a copy of "Book of Molasses Magic," and a case of MY-T-FINE Lemon Pie Filling.

From Standard Brands, Inc.: A wicker basket containing Tender Leaf Tea Bags and Instant Tea; Chase & Sanborn Coffee and Instant Coffee; Planters Dry Roasted Peanuts, Mixed Nuts, and Cocktail Peanuts; Royal Instant Puddings and Pie Fillings and Royal Gelatin Desserts, and Fleischmann's Yeast.

Second Place Winner

Winner No. 2, Mrs. Marie Colburn, is a member of Gowanda Grange in Cattaraugus County. She and her husband were attending State Grange Session and on hand to hear the winners announced from the platform.

Here is a real Grange family! Mr. Colburn is Master of Gowanda Grange, Mrs. Colburn is Lecturer, and their married daughter is pianist and chairman of Service and Hospitality.

The night of their coffee cake contest, Mrs. Colburn baked eight cakes (she only entered one!) so her daughter would be certain to have enough for refreshments. But she told me that since selling their farm eight years ago she usually doesn't do much yeast baking. Mrs. Colburn will receive the Magic Chef Gas Range as her grand prize, also $38 in cash and the grocery prizes.

Winner No. 3 Gets Dishwasher

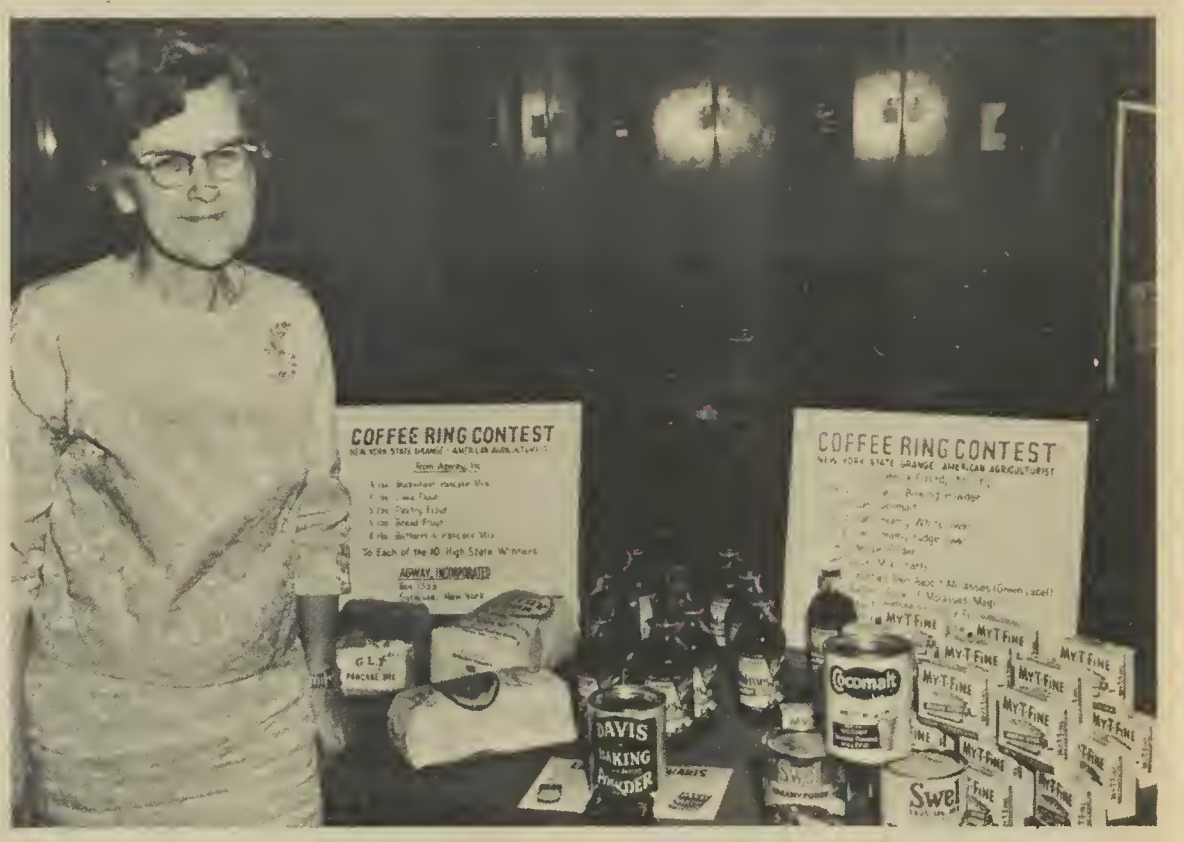
Onondaga County's winner, Mrs. Paul Huntington of Baldwinsville Grange, came in third and will receive the Unico Portable Dishwasher from Agway, Inc., $28 in cash, and the groceries.

Mrs. Huntington said her two daughters, age 14 and 10, were really thrilled about the dishwasher. I've a feeling it won't take much coaxing to get dishes done around their home for a while at least! There is also a Huntington son who is nine years old.

All three Huntington children are active in 4-H and help "man" a roadside market during the summer where they sell vegetables raised on their 35-acre farm. The Huntingtons have been Grangers four years, and Mrs. Huntington



Monarch Range representative, Harold E. Tomlinson, explains to No. 1 winner Mrs. Wilfred Miller outstanding features of her grand prize, the Monarch "Modernique" Electric Range.



Mrs. Marie Colburn, Winner No. 2, is shown with grocery prizes awarded the top ten winners by Agway, Inc. and Penick & Ford, Ltd. Mrs. Colburn's grand prize, the Magic Chef Gas Range, was not on display in Rochester, but is pictured at right.



Winner No. 3, Mrs. Paul Huntington, received the Unico Portable Dishwasher as her grand prize. Her daughters could hardly wait for it to be delivered!



COFFEE CAKE

by Augusta Chapman, Home Editor



State Grange Master Russell Curtis and first place winner, Mrs. Wilfred Miller, on the platform at New York State Grange annual session in Rochester.

is Juvenile Matron of Baldwinsville Grange.

Contest Judges and Directors

Judges for the coffee cake finals were three home economists from the Rochester area — Mrs. Trudy McNall, TV cooking expert; Mrs. Verna Parmelee, Home Service Dept., Rochester Gas & Electric, and Mrs. W. Edward Woodams, 4-H Area Leader. It took them between six and seven hours to pick the fifteen winning entries!

Mrs. Charles Scofield, Otego, N. Y., this year's State Service and Hospitality Chairman, and I directed the coffee cake contest. We were assisted by two other members of the State Committee — Mrs. Agnes McHeffey of Heuvelton and Mrs. Lizzie Houck, Dundee, also by approximately 1,000 Subordinate and Pomona S. & H. chairmen.

1965 Contest

Next year will be the 30th year that American Agriculturist and New York State Grange have sponsored a baking contest. Cherry Pie has been chosen to star in this 30th Anniversary Contest, and we will announce details in our January issue.

Get in touch with the Service & Hospitality chairman of your Grange to find out just when your Subordinate contest will be held and all the details. We hope you'll enter — you'll have fun if you do, and who knows, you might be one of the state winners next October!

15 TOP WINNERS

1. Mrs. Wilfred Miller, Lockport, Pendleton Grange, Niagara Co.
2. Mrs. Marie Colburn, Collins, Gowanda Grange, Cattaraugus Co.
3. Mrs. Paul Huntington, Baldwinsville, Baldwinsville Grange, Onondaga Co.
4. Mrs. Francis Matthews, Sr., LeRoy, Stafford Grange, Genesee Co.
5. Mrs. Godfrey Regetz, Turin, Turin Grange, Lewis Co.
6. Mrs. Lorenzo Niles, Cazenovia, Owahgena Grange, Madison Co.
7. Mrs. Wilbur Forbes, Homer, Homer Grange, Cortland Co.
8. Mrs. Lewis Bush, Athens, Loonenburg Grange, Greene Co.
9. Mrs. Nelson Merritt, Forestville, Sheridan Grange, Chautauqua Co.
10. Mrs. Anna Pulver, Livingston, Livingston Manor Grange, Columbia Co.
11. Mrs. Max Ellithorpe, Gansevoort, Wilton Grange, Saratoga Co.
12. Mrs. Arthur Reed, Canandaigua, Canandaigua Grange, Ontario Co.
13. Miss Sally Dantz, Groveland, Groveland Grange, Livingston Co.
14. Mrs. Amelia Andersen, Westerlo, Hiawatha Grange, Albany Co.
15. Mrs. Betty Fedorka, Ludlowville, Lansingville Grange, Tompkins Co.



Members of the State Grange S. & H. Committee for 1964 are Mrs. Agnes McHeffey, Mrs. Charles Scofield (chairman), and Mrs. Lizzie Houck.



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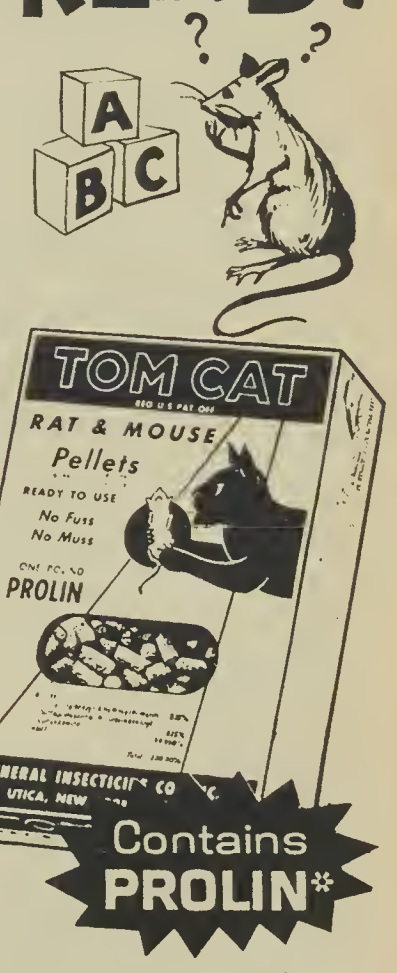
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½ cup (1 stick) Fleischmann's Margarine
3½ cups unsifted flour
½ cup chopped Planters Blanched Almonds
¼ cup chopped citron
¼ cup chopped candied cherries
¼ cup raisins • 1 tbsp. grated lemon peel
2 tbsp. Fleischmann's Margarine, softened
1 tbsp. water
Confectioners' sugar frosting

Dissolve yeast in warm water. Add sugar, salt, 3 eggs, egg yolk, ½ cup softened margarine, half the flour. Beat 10 min. at medium speed on mixer or by hand. Scrape bottom and sides of bowl often. Blend in rest of flour, almonds, fruits, lemon peel. Cover; let rise in warm draft-free place until doubled, about 1½ hours. Stir down by beating 25 strokes. Cover tightly; refrigerate overnight. On floured board divide in half. Press each half into a 10x7-inch oval. Spread each oval with 2 tablespoons softened margarine. Fold each in half longways. Firmly press folded edges only. Place on greased baking sheets. Brush with mixture of slightly beaten egg white and 1 tablespoon water. Let rise in warm draft-free place, about 1 hour. Bake at 375°F. for 20 minutes, or until done. Frost with confectioners' sugar frosting. If desired, decorate with whole almonds, citron and candied cherries. Makes 2 stollens.

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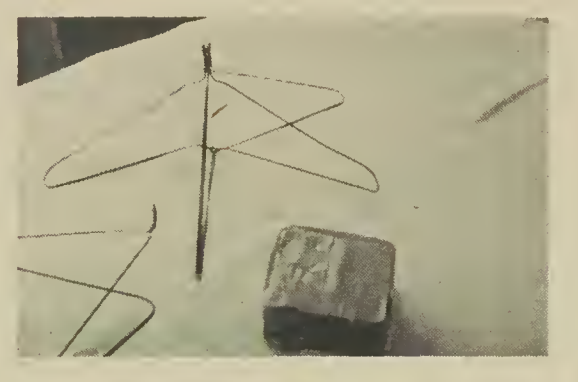
JUST ONCE A YEAR!

by Nenetzin R. White

Christmas comes but once a year and brings with it many lovely traditions — the fragrant tree, wreaths, festoons, and such. I'd like to introduce an idea or two that any homemaker can use. They require simple household tools, a small amount of time and patience, and little if any money. These suggestions are a three-dimensional star, roses from cones, and glamorized snowballs.

For our star, you will need three everyday wire clothes hangers, some picture or light stove wire, wire cutters or pliers, a 4 x 4-inch piece of styrafoam 2 to 3 inches thick, green florists' tape, florists' picks, some evergreen boughs, and assorted cones or ornaments.

First, remove the hooks from the hangers just above the twisted windings. Next, take a hanger, grasp an end in each hand and bend it toward you until the two ends are 9½ inches apart (may have to adjust to your hangers), as shown in picture. Repeat this with each hanger.



Picture shows three clothes hangers wired together to form framework for 5-pointed star, also styrafoam piece which has been covered with green florists' tape.

Next, wire the sides of two of the hangers together, add the third as shown, and wire top and center bottom firmly together. Adjust as necessary to get a 5-pointed star. Wire into the bottom center a piece of styrafoam approximately 4 x 4 inches and 2 to 3 inches thick. If you can get this in dark green, fine; if not, paint it or cover with green florists' tape. Now we have a star upon which to wire greens just as we would for a wreath.

Wire pieces of evergreens on florists' picks (you can make your own by firmly attaching wire to a toothpick, leaving enough wire to attach the pieces of evergreens) and put into top and sides of the styrafoam. Berries, nuts, cones, holly and other "pretties" can also be used.

At top of the star, where you cut off the hooks, put a bow, extra tufts of evergreens, a few cones, or what have you. This star can be hung up or used on a table, and the effect is three dimensional, different, and lovely.

Did you ever see a brown rose? You can make some for your holiday arrangements and use them in many different ways. Use cones of any size or shape and slice them (use a saw and do be careful) into quarter-inch sections. This size is about right for spruce cones; others may need to be smaller or larger. You will be amazed at the pretty, open brown roses that come forth!

Drill two tiny holes in the center of each rose, pull through a wire and tie at back, leaving ends to attach to arrangements. The wire should be dark enough so it won't show, or wind it with brown florists' tape. These are quite unusual, and I like to have two or three bunches wired together to add to fall or Christmas arrangements.

When you live in the country, as I do, these little bunches of roses can be life savers. I can slip outdoors, gather pretty fall foliage or a few clippings of evergreens, add my brown roses, and have a pretty table piece in no time. I wire them together lightly to use on the table, mantle, window sill, or almost any place. Wired more firmly, they can be used on a door or wall. If you can get some of the larger southern or western cones, there will be no end to the things you can make.



Finished star decorated with velvet ribbon and cones.

Glamorous Snowballs

Do you have some odd earrings, broken bracelets or necklaces, pretty buttons, and pieces of ribbons? Save them and use to glamorize your stars, wreaths, and festoons. Here is an easy idea that will be fun for the children.

Using a few white styrafoam snowballs, put a couple or more pieces of ribbon around each one, ending at the top. Use common pins to hold these and the pretty little ornaments or baubles that you will place on the ribbons. These snowballs will make festive additions to your Christmas tree or other decorations.

I also like to keep a can each of silver and gold spray paint on hand. Seldom do I gild anything completely, but a spray or two will often enhance your holiday decorations.



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The Coffee Cake Contest judges were (left to right) Mrs. Verna Parmelee, Rochester Gas & Electric Home Service Dept.; TV Home Economist, Mrs. Trudy McNall, and 4-H Area Leader, Mrs. W. Edward Woodams. In the picture we see them re-checking some of the entries in order to break a tie score.

PRIZE WINNING RECIPES

The 53 county winners in the American Agriculturist-New York State Grange Coffee Cake Contest baked a tempting array of coffee cakes for the finals which were held at the annual meeting of the Grange in Rochester, N. Y., the last week of October. They included many different kinds, as contestants were allowed to enter their favorite version of yeast coffee cake — round, oblong, ring or braid, filled or plain.

Below are the recipes of the three top winners — Mrs. Wilfred Miller, Route 2, Lockport, N. Y.; Mrs. Marie Colburn, Highland Ave., Collins, N. Y. and Mrs. Paul Huntington, Route 1, Baldwinsville, N. Y. The recipes are printed just as they were given to us.

NO. 1 — APRICOT COFFEE CAKE

(Mrs. Wilfred Miller)

2 cups milk, scalded
1/2 cup sugar
2 teaspoons salt
2 yeast cakes
1/4 cup warm water
2 eggs, beaten
1 teaspoon vanilla
6 1/4 cups all-purpose flour
1/2 cup shortening, melted and cooled to room temperature

FILLING

3 cups dried apricots
1/2 cup sugar
1 teaspoon almond extract
1/4 teaspoon salt
1/2 teaspoon vanilla
1 cup walnuts, chopped
1/2 cup butter

FROSTING

2 cups confectioners' sugar
1 tablespoon butter, melted
1/2 teaspoon vanilla
1/2 teaspoon almond extract
4 tablespoons milk
1/2 cup walnuts, chopped
9 maraschino cherries, halved

Scald milk; add sugar and salt; dissolve and cool. Add yeast which has been dissolved in warm water. Stir well. Add eggs and vanilla and stir well. Add 3 cups flour and beat for 50 strokes. Add cooled shortening and beat 50 additional strokes. Add remaining flour and beat another 50 strokes.

Grease top with melted shortening; cover with damp cloth and set in warm place to rise. When double in bulk, punch down and let rise again. After 1/2 hour, turn out on pastry cloth and divide into thirds. Let dough rest 5 minutes; shape into coffee cakes or sweet rolls. This recipe makes 3 coffee cakes or 5 dozen rolls.

To make filling: Soak apricots overnight in a little water. In the morning, simmer over low heat in a heavy saucepan for about an hour, stirring occasionally. Add sugar while apricots are still warm and stir or whip gently to mash the fruit. Cool and add flavorings.

To make one coffee cake: Roll dough to a rectangle 12" x 15" and spread with 2 tablespoons butter, 2/3 cup apricot filling, and 1/3 cup chopped nuts. Roll up and make a circle; place on a greased 12" x 18" baking sheet. Let rise for 45 minutes and bake at 350°F. for 20 to 25 minutes. Cool and frost. Decorate with 2 1/2 tablespoons chopped nuts and 3 cherries, cut in half.

NO. 2 — MAPLE BUTTER TWISTS

(Mrs. Marie Colburn)

1 package dry yeast
1/4 cup warm water
1/4 cup butter
6 tablespoons sugar
1 1/2 teaspoons salt
1/2 cup milk, scalded
3 eggs
3 1/4 cups flour, approximately

FILLING

1/4 cup soft butter
1/2 cup brown sugar, packed
1/3 cup white sugar
1/4 cup maple syrup
2 tablespoons flour
1/2 teaspoon cinnamon
1/2 teaspoon maple flavoring
1/2 cup walnuts, chopped

Soften yeast in warm water. Combine next four ingredients in a large bowl. Stir in unbeaten eggs and the softened yeast. Gradually add 3 1/4 to 3 1/2 cups flour, to form a stiff dough. Beat well after each addition. Cover with Saran Wrap and let rise in a warm place until light (1 to 1 1/2 hours).

Make filling by creaming soft butter, adding remaining ingredients, and creaming together.

Toss dough on well-floured surface to coat with flour. Divide in half (recipe makes two 8" twists). Roll out one portion to 14" x 8" rectangle and spread with half of filling. Roll up, starting with 14" side. Cut roll in half lengthwise. Twist strips together, cut sides up.

(Continued on page 37)



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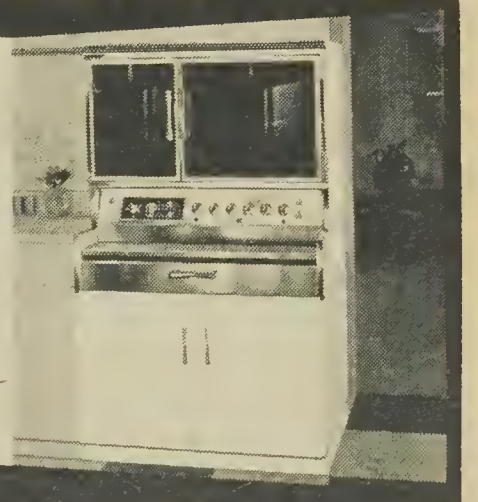
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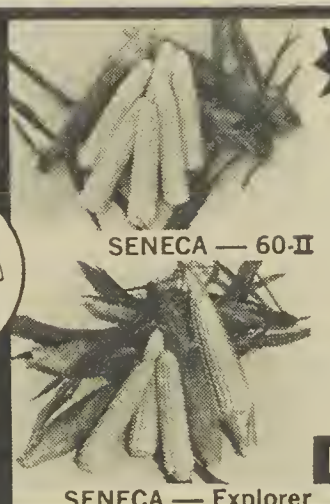
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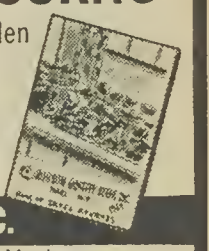


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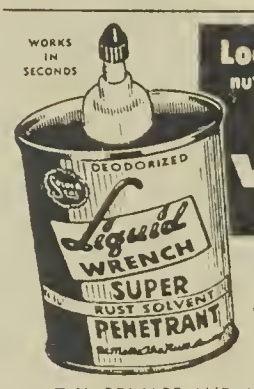
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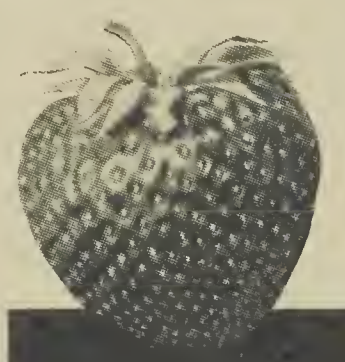


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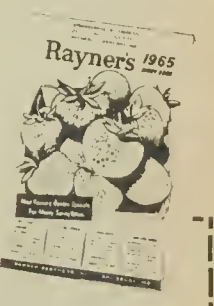


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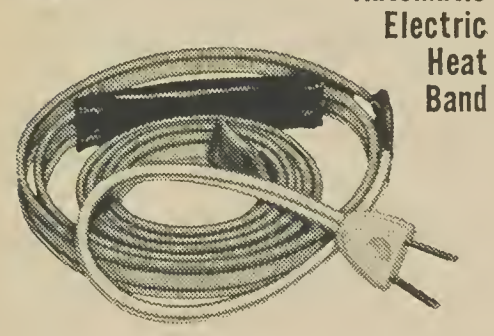
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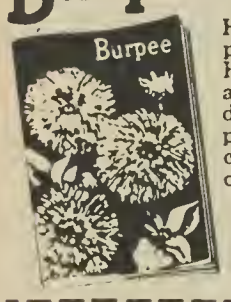


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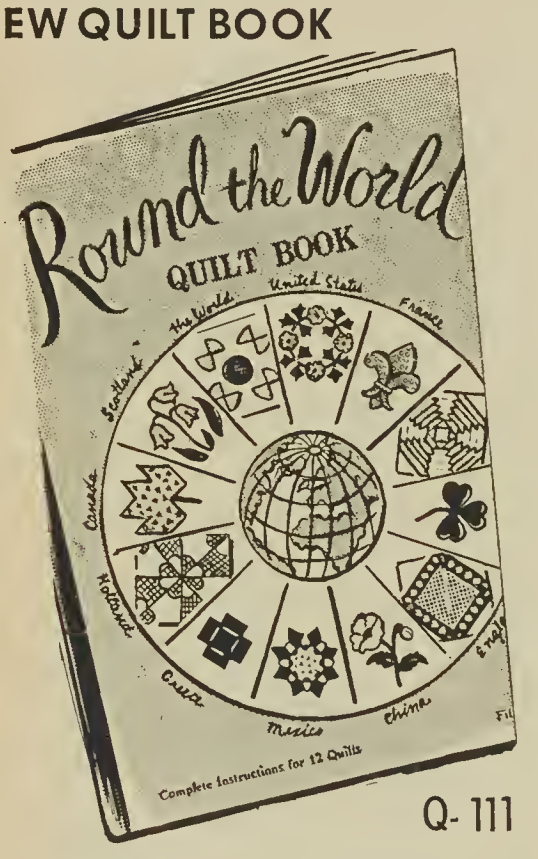
FOR UNTO YOU IS BORN

By Edith Shaw Butler

What happened on that night so long ago
When herdsmen saw the radiance in the sky
And they were sore afraid? We only know
Luke says they heard a heavenly host on high,
Strange tidings told. Then, filled with awe, they went
Across the hills to Bethlehem to find
The stable crib and kneel in wonderment
Before the Child who came to save mankind.

Had there been room within the inn that night
Of old, the poor might not have found Him there,
Shut out from seeing that amazing sight,
Told such was not for humble folk to share.
In Love for all, the Son of God was born
And cradled in a stall that Christmas morn.

NEW QUILT BOOK



Q-111

Here's a brand new addition to our quilt book library — 'ROUND THE WORLD QUILT BOOK!

Q-111 contains full directions and pattern pieces for making 12 quilts in patchwork and applique, inspired by faraway places. You'll want to order your copy today — only 50 cents.

TO ORDER, send 50 cents in coins to: AMERICAN AGRICULTURIST, 1150 Avenue of Americas, New York, N. Y.

Prize winning recipes

(Continued from page 35)

Shape into a ring in well-greased 8" or 9" round pan. Repeat with remaining dough. Cover. Let rise in warm place until light, about 45 minutes. Bake at 350°F. for 25 to 30 minutes. If desired, frost with confectioners' sugar. These coffee cakes freeze well wrapped with Saran.

NO. 3 — APRICOT-HONEY COFFEE LACE

(Mrs. Paul Huntington)

1 package dry yeast
1/4 cup lukewarm water
1 1/2 cups milk, scalded and cooled
1 1/4 teaspoons salt
1/2 cup sugar
1/2 cup shortening, melted
1 egg yolk
5 cups flour, sifted

FILLING

2 tablespoons softened butter
2 tablespoons honey
1/3 cup brown sugar
1 teaspoon cinnamon
2/3 cup apricot preserves
1/2 cup chopped nuts

Dissolve yeast in lukewarm water. Combine next 4 ingredients with softened yeast in large mixing bowl. Add 3 cups flour and mix well. Add shortening and egg yolk and beat well. Gradually stir in remaining flour, adding just enough to make a dough slightly softer than for bread.

Turn out on floured board and let rest 5 minutes. Knead until smooth and elastic, adding flour as necessary. Place dough in greased bowl and brush with melted shortening. Cover and let rise in warm place until doubled in bulk (about 1 1/2 hours). Fold under and let rise again.

Knead down and divide in 2 equal portions. Let rest 10 minutes. Roll dough into two 10 x 14-inch rectangles. Place each rectangle on well-greased, warm cookie sheet. Down center of each rectangle, on a strip 3 inches wide, spread 1/2 of the butter-honey mixture. Next sprinkle with 1/2 of the brown sugar-cinnamon mixture and spread with 1/3 cup apricot preserves. Sprinkle with chopped nuts.

At each side of filling, make cuts 2 inches apart, cutting into dough 2 inches. Make 7 strips on each side. Take a strip at each side and cross them at center of filling. Pull strips down, keeping ends inside. Continue to lace opposite strips, tucking last ends inside.

Cover dough and let rise 30 to 40 minutes. Bake until golden brown in a moderate oven, about 350°F., for 30 to 35 minutes. Glaze with honey icing while still warm. Decorate with chopped nuts if desired.

Make honey icing by combining 1 cup sifted confectioners' sugar, 1 tablespoon honey, 2 to 3 tablespoons light cream, and beating until of spreading consistency.



The MAN BEHIND This Membership Sign



On barns or milkhouses of some 8,000 dairy farms throughout the Metropolitan New York Milkshed, you're apt to notice these blue and white membership signs.

They mark the place of business of a progressive dairy farmer, one who believes in cooperation, and one who is willing to contribute his personal effort toward projects designed to improve the situation of all dairymen.

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It will also win a special place in the heart of your father, mother or friend by guiding them down memory's lane when life was simple and uncomplicated.

Send your check or money order for $5.95 per copy to AMERICAN AGRICULTURIST, Department Book, Savings Bank Building, Ithaca, N. Y. and your copy of the book will be mailed postpaid.

AMERICAN AGRICULTURIST BUYS THE RURAL NEW YORKER

THIS ISSUE — combining for the first time two of the oldest and best farm papers in America — American Agriculturist and The Rural New Yorker — marks a very important event in agricultural journalism. The union of these two papers is not only highly important to the rural people of the Northeast but also to the large companies and their advertising agencies who manufacture and distribute the supplies necessary to carry on the business of the farm and the farm home. The move brings together two great families of readers, which will enable the unit to do a much better job for you than either paper could do alone.

An Enviable Record

Both papers have a long and honorable history of service to rural homes, so perhaps a brief look at that history at this particular time will be of interest to you.

American Agriculturist, founded in 1842, is one of the two or three oldest farm papers in America. The Rural New Yorker was started only 8 years later, in 1850. Two brothers by the name of Allen were the first publishers of American Agriculturist. They were followed by Orange Judd, a very positive and determined character, who wielded immense influence during those fateful days before and during the Civil War. Orange Judd built up the circulation, and under his leadership the publication grew and prospered.

Reading Then And Now

In our files in the offices of American Agriculturist are bound copies of every issue of the paper ever published since it started in 1842. The copies of that whole first year, all together, make only a small book — 6½ x 10 inches. The print was so small that I don't see how Great-Grandpa with his poorly fitted spectacles — when he had any at all — could see to read it. But small as was the print, and hard as it was to read it, read it they did. They were starved for something to read.

Obviously, the editorial policy — even up to fairly recently — had to be much different from what it is now, for the farmer's mailbox today is crowded with all sorts of magazines, newspapers, bulletins, and other second-class mail, all competing with American Agriculturist for the reader's time. To get and keep the farmer's attention and interest, a farm paper must now be bigger and more attractive in every way than was necessary when American Agriculturist and The Rural New Yorker were young. The print must be large and clear, with more and more pictures and lots of color, something the old-time editor never dreamed of. While some of the advice in the old papers was correct and good, today of course science and modern machinery have entirely changed the farm scene.

Quite a Record

After Orange Judd, American Agriculturist had a succession of publishers and editors, most of whom must have been good . . . for in all the long years from 1842 to 1964 the publication never failed to go to press. That's quite an achievement! When you think of all the wars and business panics the country has suffered during that long period, and when you remember that more changes have happened in that time than in all the preceding years put together, it's quite a record . . . 122 years! And The Rural New Yorker has been published for almost as long as that. This is your best proof that the combination of the two will go right on serving you, bringing you the latest and best farm information and news in our rapidly changing times.



ED EASTMAN'S PAGE

Only A Faint Quacking

But there were a few years after the first World War when American Agriculturist changed hands several times, and its publishers seemed to have been more interested in squeezing every last cent out of the paper than in continuing to build it up. The result was that by 1922, while American Agriculturist was not exactly a dead duck, it wasn't able to quack much!

That year, Henry Morgenthau, Jr. (who later became Secretary of the United States Treasury) bought American Agriculturist, and in the early fall he asked me to come with him as its editor. Soon after, he assembled a staff of hard-working, sincere and able men and women whose one interest was to re-build a truly great farm paper. So we started to put American Agriculturist back on the map. It took a long time, but we did it.

Moved to Ithaca

In 1934, some of us bought the paper from Mr. Morgenthau (mostly with promissory notes) and we moved the headquarters from New York City to Ithaca in order to be near our farmer subscribers. Two years later, in 1936, we turned over our stock and debts to the American Agriculturist Foundation, which has a board of directors who represent the subscribers.

When we started in 1922, the Rural New Yorker outclassed us in both circulation and advertising, as it did for several years afterwards. But gradually we reversed the situation until finally our circulation and advertising exceeded theirs and the difference was continuing to increase. American Agriculturist became the leading farm paper in the Northeast. However, as the years went on, it was becoming increasingly evident that two regional farm papers in this section were not needed, and that neither could continue to prosper alone.

Recognizing this situation, Mr. William Berghold, publisher and editor of The Rural New Yorker, this fall sold the publication to American Agriculturist. His only stipulation was that we should include both American Agriculturist and The Rural New Yorker in the masthead and publish the paper under the two names. That we were more than willing to do because the Rural New Yorker still had many subscribers who had been faithful to the paper for many years. Now readers of both publications can feel that the basic principles and the constructive editorial policies of both papers will be continued in the joint publication.

A Quarter-Million Strong

I am very sure that the subscribers of both American Agriculturist and The Rural New Yorker are going to be very pleased to have one paper instead of two — for one reason because the combined circulation of more than a quarter-million subscribers who now own American Agriculturist and The Rural New Yorker will have immense influence and prestige on legislative and other problems which affect rural people. The combined publication will be in a better position to continue the fight which both have made against propositions and laws detrimental to rural people and for the laws that will help farmers and country life. Also, you will be pleasantly surprised and pleased in every way with the bigger and better publication.

Why — you may well ask — was American Agriculturist able after 1922 to increase its circulation and its advertisers so that it finally became one of the largest and best regional farm publications in America? Why were we able to climb from the bottom of the totem pole in 1922 to the top in 1947? The answers to those two questions are: Editorial Policies and Right People.

Editorial Policies

When I started as editor in 1922, we laid down the following editorial policies and principles:

I. Help Farmers To Grow And Sell Better Products

1. Give farmers the latest and best scientific information about their business both in production and marketing.
2. Support farm organizations and cooperatives, always reserving the right to be constructively critical when necessary.

II Fight The Farmers' Public Battles

1. Support laws in legislatures and Congress which are in the best interests of rural people and oppose those which are not.

III Promote Good Government And Good Citizenship

1. Through American Agriculturist, try always to save our liberties and keep alive the basic principles that made America great. (We have emphatically opposed Big Government, with its ruinous taxes and bureaucratic regulations.)

IV Work For All Rural People, In Addition To Full-Time Farmers

1. These include part-time farmers and non-farmers who live in the country. Most of their interests are the same as those of full-time farmers.

V Help Increase The Happiness Of Rural People

1. What's the use of working and worrying if people are not happy?
2. Try to publish a paper which will give readers a lift of the spirit and the feeling that life is worth living.

Those are some of the basic editorial principles that have helped to put American Agriculturist at the top in the hearts of the readers. Under Gordon Conklin's leadership they will be continued, with whatever changes are necessary to meet our rapidly changing times.

IT BROUGHT THEM HAPPINESS

Nothing has given me so much satisfaction in years as the many letters I have received about my latest book — JOURNEY TO DAY BEFORE YESTERDAY.

These letters tell how every member of the family read the book; how one man sat up late in the night to read it; how one woman couldn't stop until she had finished it. Many a letter told me how the book had helped to renew the reader's youth. Many people bought the book to use as a Christmas or birthday gift. The letters made me happy — not for any selfish reason but because they prove that the book brings happiness to others.

If you would like a copy, send check or money order for $5.95 to AMERICAN AGRICULTURIST, Department Book, Savings Bank Building, Ithaca, N. Y.

Season's Greetings



Now in its 79th year, the North American continues to serve farm families throughout the Northeast with personal protection. In the coming year we pledge again to you our prompt-personal service during your time of need.

We at the North American extend to each of you warmest wishes this Christmas Season. May the New Year bless you with happiness, good health and the opportunity to prosper.

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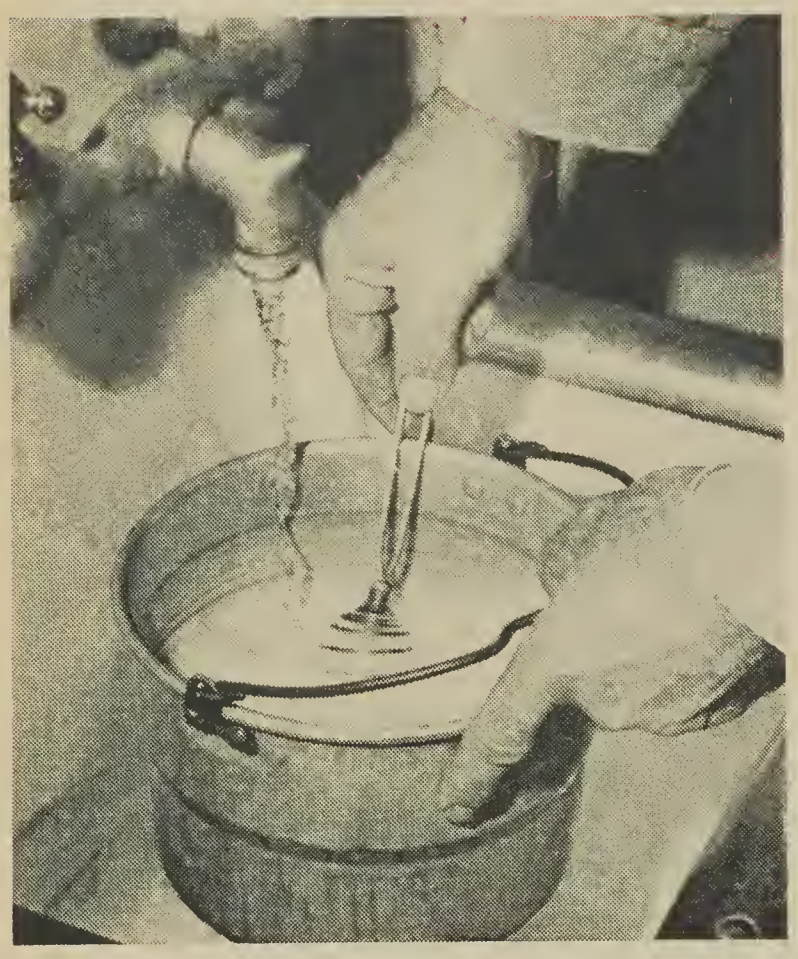
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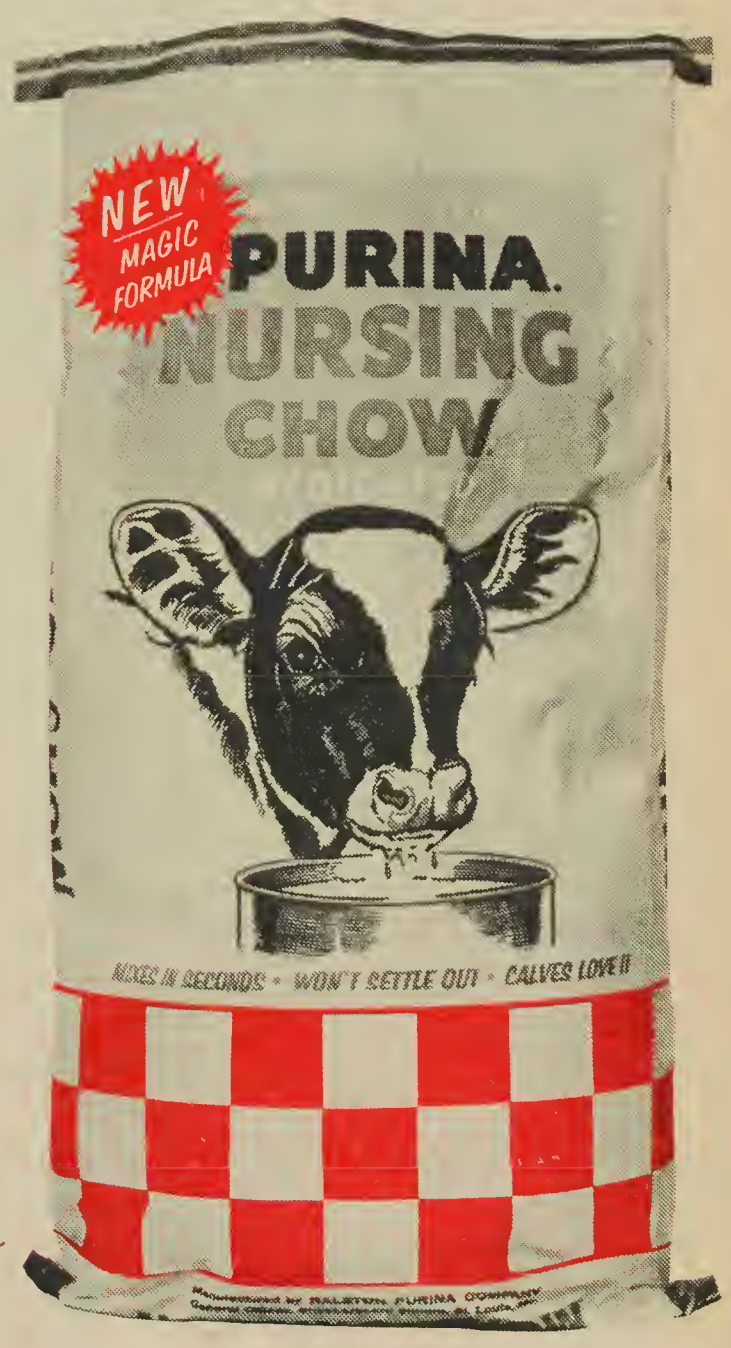


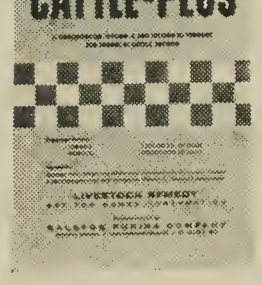
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New Nursing Chow dissolves like magic in warm water. It won't settle out so calves get all the vitamins, minerals, proteins, fats, and carbohydrates they need to get off to a faster start in their first 30 days.

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You can feed Magic Formula Purina Nursing Chow from a nipple pail, bucket, or automatic calf feeder without clogging or settling out. Best of all, one bag of new Nursing Chow replaces more than 225 lbs. of whole milk . . . and gives calves a faster, healthier start! Good reason to ask your nearest Purina dealer for enough to raise your next bunch of calves the Nursing Chow way.





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Both are available from your local Purina dealer. See him today!

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